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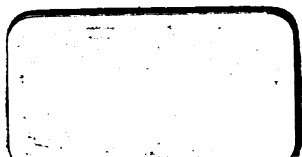
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Important discovery. Hibbert's new theory and practice of medicine, a ...

William Hibbert





IMPORTANT DISCOVERY.

HIBBERT'S
NEW THEORY AND PRACTICE OF MEDICINE.

A TREATISE

ON THE NATURE, CAUSE, CURE, AND PREVENTION OF DISEASE IN
ANIMALS, HORSES, CATTLE, SHEEP, PIGS, DOGS, POULTRY, CAGE BIRDS, SILK WORMS,
WITH PRACTICAL ILLUSTRATIONS OF THE MEDICINAL AND OTHER USES OF

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PREFACE.

In the present work, on the Diseases of Animals, we have endeavoured to improve on the previous work, on the Diseases of Human Beings, by introducing, in the Article on Milk and Flesh Productions, a brief summary, explanatory of the composition and chemical action of the Antiseptic Remedy in medicating the fluids which furnish the elements and principles necessary for building up and sustaining the animal frame; by such means aiding the vital power in preserving, restoring, and regulating healthy functional action—a condition necessarily attendant on a state of health and vigour—realising in the human frame the *mens sano in corpore sano*.

In order to exemplify the universality of the application of the Antiseptic principle, we have also introduced, in the present volume, an article on the Silk Trade and Silk Worm; we have announced therein a new theory and practice in the rearing and management of that little industrial worker; explaining the possibility of reviving the silk trade, and rearing the worm with perfect ease and success in this country. But we have, at same time, stated with truth, that the wide world, lies before us; and the instruction we can impart is as valuable in one country as in another,—adapting itself to climatic influences and attendant requirements. We have announced, at same time, the facility and certainty with which the fearful losses consequent on epidemics, and casual—nay periodical, destruction of the silk worm—may be avoided, or remedied in all countries.

We have, further, announced our readiness to respond, in writing, to any correspondent, already extensively engaged or about to embark in the silk trade, in this or any foreign country.

Caloric, if not admitted to be a material agent, is, at all events, a subtile, invisible, elastic, imponderable fluid, universally diffused, or diffusible—evolved by the peculiar motion or vibration of the particles of bodies:—the first view evidenced by the evolution and absorption of heat during chemical combinations; and the last, by the production of heat by friction, and the fact, that whatever is capable of producing motion in the particles

of any mass of matter, excites heat ; and it determines to the point at which friction is applied.

This inherent power, which caloric possesses, consists in a constant tendency to separate the particles of bodies. It is the repulsive power which acts in all bodies whatever, and which is in constant opposition to the power of attraction.

The phenomena which results from these mutual actions seem, as it were, the secret springs of nature.

No fact is more generally known than the expansion of bodies by heat. When caloric in excess insinuates itself between the particles of bodies, they are forced farther apart, and the body becomes swollen or expanded ; and, thereupon, and consentaneously, inflammatory or febrile action ensues in the animal frame. Another result of the excess of caloric in any part of the animal organism—producing inflammatory action, is effusion—the solid flesh itself becoming so inflamed and heated by the action of the superabundant caloric, that, in plain words, it becomes liquefied, and effusion or exusion is the natural consequence.

This subtle diffusible agent steals quickly through the frame, inducing general febrile action ; and the flame will continue to burn with increased fury, till it be arrested and quenched by an irresistible refrigerant, like the Antiseptic Remedy.

In the case of effusion, or exusion, we have explained at length the incalculable value of the outward application of the Antiseptic Lotion, with friction (see Table of Treatment), as an absorbent, attracting the superabundant caloric to the surface, and exhausting the latent inflammatory action within, whilst the local effusion becomes exhausted by absorption.

The Antiseptic Cloth is an irresistible associate refrigerant agent, which, on drying, should be constantly remoistened with the Lotion, removed and cooled by shaking in the air on every occasion before re-application.

When these preliminaries are carefully observed, and the particular directions to be found in the Table of Treatment and accompanying illustrative and explanatory articles followed out, it never fails to act with certainty and promptitude—attracting to the surface and exhausting the superabundant caloric, generating latent inflammatory action ; and this, by the action of vaporisation—evaporation—aided by the inherent power of the Antiseptic Remedy, and its combined associate action, when applied externally and internally at the same time—being the most powerful known

refrigerant which could be conveniently, or safely applied in exhausting latent inflammatory or febrile action in the animal frame.

Nine years are now passed and gone since the discovery of the medicinal and other uses of the Antiseptic; and in the Preface which follows, extracted from our preceding volume, on the Diseases of Human Beings, we have given a brief outline of the discovery, and noticed our long-continued, persevering, and varied experiments. The system is now fairly established, on the firm basis of unanswerable and unquestionable testimony and experience.

The Remedy is novel—a combination of some of the most powerful articles included in the *Materia Medica*. The application is novel; so that the Remedy and its application, are both original—the discovery our own,—and it stands single, alone, and independent, unlike every other Antiseptic Remedy or System in existence.

Oxygen is life; without it we die. The following simple and comprehensive statement will furnish undeniable proof, that oxygen is the primary constituent of the various natural and material forms in this lower world; that it pervades the whole, as the essential principle, or the necessary condition of being; and that without its sustaining presence the human frame would instantly sink collapsed and inanimate.

The Antiseptic Remedy preserves and restores pristine vigour and healthy functional action in the human frame—thus aiding the operations of nature within it in the work of extracting from the daily aliment and the circumbient air the essential primary principles of life and being.

Outline of the Chemistry of Oxygen.—The wide diffusion and the importance of oxygen in nature's economy, may be judged of when it is stated that of the whole crust of the globe, including animals and plants, oxygen constitutes from one-half to two-thirds. This statement may appear surprising; but let us call to mind one or two facts. Let us consider the amount of water on the face of the globe to begin with—the extent of the atmosphere, the proportion of clay, of flint, and of lime. Now, every nine parts by weight of water contains eight by weight of oxygen. Every eighty-eight parts by weight of atmospheric air, contains thirty-two parts by weight of oxygen; of flint, about one-half, or oxygen of lime about two-fifths; of clay, about one-third; therefore we may roughly say, that of the ordinary compounds, one-half their material is oxygen.

Amount of Oxygen in the World.

ANIMAL	{	Principles	$\frac{1}{3}$	}	Therefore Oxygen is $\frac{1}{3}$ or $\frac{2}{3}$ of the Globe.
		Phosphate of Lime	$\frac{1}{3}$		
		Water	$\frac{1}{3}$		
VEGETABLE ...	{	Principles	$\frac{1}{3}$		
		Water	$\frac{1}{3}$		
MINERAL	{	Silica	$\frac{1}{3}$		
		Alumina	$\frac{1}{3}$		
		Lime	$\frac{1}{3}$		

For the performance of respiration, fermentation, and combustion, no less than four billions of pounds of oxygen are required daily; and at least double that amount, if we include all the natural operations to the performance of which oxygen is necessary.

PREFACE

FROM OUR TREATISE ON THE DISEASES OF HUMAN BEINGS,
REFERRED TO ABOVE.

WHILST disclaiming all and any intention or desire to undervalue the labours and general intelligence of gentlemen engaged in the medical profession, their responsibility for the present deplorable state of the practice (which has become profoundly complicated, and the results alarmingly uncertain) must not be overlooked.

The greatly increased and still increasing proportion of deaths; the lengthened period under treatment of those who recover; and the lamentable failure to grapple successfully with epidemic, contagious, and many other forms of disease, are too painfully evident to be seriously questioned.

Hence the appointment of commissions of inquiry and constitution of boards of health, sanitary associations, and other institutions, with a like object, in all our great centres of population:—all evidences of a deep and growing conviction, in the mind of the public, of the imperative necessity for the introduction of some less complicated and more efficacious mode of treatment, by which the present alarming state of things may be arrested, and future success in the treatment of disease be made more uniform and certain.

It may, therefore, be presumed, that any discovery having for its object, and being really calculated to supply such an important desideratum, may fairly claim, *and ought to obtain*, the earnest attention and serious consideration of all who sincerely desire to see a diminution

of human suffering, and a prolongation of the average duration of human life.

The great want of the profession undoubtedly is, a quick and powerful, yet safe and certain antidote to decomposition, which forms the base of all disease; and the object of this treatise is to explain and make known the nature and operation of such an antidote, the inherent chemical properties of which are eminently calculated to supply this great want:—and although taught, by practical experience, not to despise the difficulties, or under-estimate the cost involved, in pushing to a successful issue the introduction of so novel and comprehensive a reform in the theory and practice of medicine; still, being so simple in its application, general in its adaptation, and uniform in its results, the author feels morally bound to continue such efforts as may be necessary for its introduction to the profession—seeing that its own intrinsic merits must eventually overcome all difficulties, whether they may arise from prejudice, established usage, or vested interest.

The most advanced medical science teaches that, in the living organism, chemical, physical, and mechanical effects are constantly influenced, modified, and altered, by the *quasi* dominant power of the vital principle.

Vital power—the *vis medicatrix nature*—is more powerful than the physician in the cure of disease; whose art consists, in most cases, in stimulating and aiding, by the remedy he prescribes, the action of that power. We are, at the same time, conscious of the existence of a preserving principle, constantly watching over the harmony of the functions; and struggling against all the powers that may tend to interrupt the free exercise of, or annihilate, vital action.

We may here state that the discovery of the medicinal properties of this Antiseptic was the result of a previous discovery of its extraordinary power in preventing and arresting decomposition, or mildew, in cotton fabrics, and other vegetable matters. Having observed the nature of its action in this direction, the possibility that it might probably act in a similar manner if applied to animal matter suggested itself; and, therefore, a series of experiments were made—first with bone's size, fresh, and in various stages of decomposition;—also with fresh and tainted beef, mutton, rancid bacon, butter, and other animal matters;—and these experiments, to our great surprise, developed another most important feature in its action, viz., that of its being a most complete, instantaneous, and effectual deodoriser and disinfectant; as well as its equally remarkable power in preventing and arresting, in all, or any of its stages, decomposition in animal matter.

Consequently, after a careful examination of the extraordinary results of these experiments upon inanimate matter; and, after due consideration,

seeing no valid reason why the Antiseptic should not, if applied, act in a similar manner upon animate, as upon inanimate matter—another series of experiments were made with a view of solving this problem; commencing, firstly, upon our own person—carefully noting the results; then upon our family, and any ailing friends willing to try it. Here, again, the results were so decisive and uniformly favourable, that a still more extended series of experiments were at once commenced.

Subjects for experiments were sought out in all directions; the nature of their complaints was ascertained, and they were requested to try it. Many shook their heads despairingly, when intimating they had tried everything and found no relief; and therefore it was all in vain—theirs being a hopeless case. Nevertheless, a promise to supply the Remedy, with instructions for its use, free of charge, on condition that they would report the result, whether favourable or otherwise, and an assurance that, if it did them no good, it could do them no harm—was almost uniformly successful in insuring a trial.

These experimental trials, for which five hundred bottles were distributed, and which included almost all kinds of disease, extended over a period of five years, previous to offering it for sale. At the same time numerous experiments were being made upon various kinds of animals—including horses, cows, sheep, pigs, dogs, poultry, &c.; which also included a great variety of diseases to which animals are subject; and these experiments were shown to be equally as successful as those made on human beings.

At this stage, and with the view of ascertaining whether the results of my own experiments would be confirmed, or otherwise, by the profession, a number of medical gentlemen and veterinary surgeons were freely and liberally supplied with sufficient quantities of the Antiseptic Solutions for the purpose of testing their merits in their own practice:—and for their candid and uniformly favourable (verbal) reports, we feel bound here to express our gratitude.

These reports include also a great variety of diseases of a febrile and inflammatory nature, arising from morbid fermentive action in the human system.

The results of our own experiments being so uniformly and agreeably confirmed, we proceeded to visit several of the hospitals in Manchester, Liverpool, and London; when the nature and properties of the Antiseptic were fully explained to the resident medical officer. A twelve month's supply for hospital purposes was offered, free of charge; which offer was uniformly, but politely, declined; and only in one instance, viz., one of the London hospitals, were they induced to make even a trial of it.

Farther, upwards of two hundred of the most respectable chemists in the principal streets and thoroughfares of the metropolis were called upon,

to whom the nature and properties of the Antiseptic were again fully explained, and a sufficient supply given to each for experimental purposes ; so that each one might practically satisfy himself, at his own convenience, as to its intrinsic merits.

It will, therefore, be observed that our object in giving this condensed and simple statement of the incidents and circumstances under which the discoveries we have recounted were made ; the order and the number of careful, yet severe, practical tests to which they were subjected ; also the time and labour devoted to the same, are enumerated simply in order that our readers may be fully assured of the fact that our theory and practice are based upon calm reason and sound philosophy ; which, when understood and appreciated by the profession and the public, must greatly aid in simplifying the treatment of disease ; make the attainment of successful results more speedy, uniform, and certain ; materially decrease the amount of human suffering ; and consequently tend to increase the average duration of human life.

Our theory is, that febrile or inflammatory action—depending on a misdirection of nervous irritability, in deficiency or in excess—and rudimentary fermentive decomposition is the basis, or initiatory process, in nearly all diseases.

Putrefactive fermentation is the spontaneous decomposition of such animal and vegetable matters as exhale a foetid smell. The solid and the fluid matters are resolved into gaseous compounds and vapours, which escape and unite in earthy residuum.

The requisites to this process are :—First, a certain degree of humidity ; second, the access of atmospheric air ; third, a certain degree of heat : hence the abstraction of the air and water, or humidity, by drying, or its fixation by cold—by salt, sugar, spices, or Antiseptic compounds, will counteract the process of putrefaction, and favour the preservation of animal and vegetable substances—whether deprived of life, or existing in the living organism.

On dissection in typhus fever, the mucous membrane of the stomach and intestinal tube, and often the muscular and peritoneal coats, present, here and there, spots of various sizes—the effects of inflammatory action, and are subgangrenous and purporaceous in appearance ; which is neither more nor less than rudimentary putrefaction. Is it not clear, then, to demonstration, that a powerful Antiseptic and absorbent, timeously administered, must have the inherent power to cut off the disease at the very commencement—sparing the patient all the suffering consequent on leaving the disease to run through the conventional stages, as is usual in the everyday medical treatment of the faculty ? Does this not hold equally true in every disorder, attended by febrile or inflammatory symptoms ? Who,

defying the deadly attacks of the most terrible and dominant enemy of the people of the British Islands. In our moist and uncertain climate, we have succeeded in providing the certain means of escaping and repelling the insidious attacks of pulmonary disease ; and in case of a visitation from this ruthless tyrant of our climate and people, we offer a cheap and reliable Remedy and restorative ; whose inherent power will assert its supremacy on all occasions, if administered in strict conformity to the instructions to be found in the Table of Treatment and Illustrative Cases.

Any professional man or patient who may consult this work, after perusing the portion applicable to the case in hand, should thereafter go to the Appendix, and read over the Illustrative Case or Cases of the same class, which are given as examples for his guidance.



DISEASES OF ANIMALS.

INTRODUCTION.

WE have elsewhere treated of the inherent power of the Antiseptic Practice in the cure of the diseases which afflict the Human Family; and we shall now proceed to show that its power is equally unlimited in the cure of the diseases of the inferior animals.

Our purpose is to furnish all those interested in the breeding, rearing, keeping, and utilizing of the domestic animals, with a concise and satisfactory account of the nature, causes, and cure of the maladies to which they are subject; enabling all interested to eschew the counsels of ignorance and empiricism; to employ humane and intelligent treatment; and be enabled, on every occasion, to give a sound and satisfactory reason for every means they employ, and every step they take, in the course of treatment.

We concur with Mr. Leo Grindon, Professor of Botany in the Manchester School of Medicine, and have expressed ourselves in similar terms in our recent work on the diseases which afflict the human family. In Professor Grindon's opening lecture of the session of this year, he says that "men were never meant to die of disease;" and "medicine had the illustrious task deputed to it of furnishing such supplies as would compel the attacking force to raise the siege and withdraw discomfited;" and "that to drench with conventional mixtures, to bombard with pills, and to draw away whole pints of the crimson sap, was really only calling upon nature to get over an additional difficulty—the difficulty imposed upon her by these druggish barbarisms, and by the vampire of bloodletting; and that the true future of medicine would be found, not so much in the cure of disease as in its prevention;"—"falling back on man's primitive

relations with benignant nature, and sustaining the glorious vigour which was his birthright through the medium of nature's own simple regimen,"—and that "at the close of the coroner's inquest the verdict should be *truly*, 'Died by the visitation of God;' whereas, up to the present, to tell the truth, it should have been, much too often, 'Died of two physicians and a surgeon.'"

What is true of the children of humanity is true of the beasts of the field; and our care shall be to show, in plain and simple language, how animals may be cured without torture, and preserved in health by our constitutional Medicine, which is endowed with the exuberant power to ward off disease and strangle it in its birth, if it should supervene for the moment, through imprudent exposure, neglect, or a disregard of the golden rule of obedience to the laws of nature.

If we deem it impossible, at any time, to relieve man or beast without having recourse to extreme violence of treatment, the chances are that, in nine cases out of ten, where extreme violence may have been practised, nature would have accomplished the task herself unaided; if, indeed, a cure had been, in human parlance, possible under the circumstances.

We may refer, generally, to the preface, the table of treatment, and accompanying explanatory articles in the treatise on human diseases for the principles on which the Antiseptic Theory and Practice is founded. We have reserved a general detail of the chemical composition and action of the Antiseptic Medicine for the article on MILK AND FLESH PRODUCTION; and we refer the reader to this portion of the work for particular information in this connection. The brief details there given will satisfy any candid enquirer of the inherent power of the Antiseptic Remedy to deal with disease in general, seeing that it combines the curative principle requisite in congestive or inflammatory diseases; and that one or other of these states is the antecedent, the associate, or the consequent, of all diseases of animals. But we shall now take a still nearer and more practical view of organic structure and functional development and action, and the natural forms of suffering—the nature, causes, and remedy of the diseases which afflict the brute creation.

From the peculiar vascular system of cattle, that excitement which would produce pneumonia, pleurisy, or inflammation in the horse, is the usual cause of inflammatory fever in cattle. The weakest part is attacked. The lungs and the feet suffer

most from mismanagement in the horse; the vascular system is most subject to disease in the ox, for he is kept as nearly as possible, with a view to profit, in a state of plethora.

In all animals the existence of life is connected with, and dependent upon, the constant supply of fresh arterial blood. The heart is the forcing-pump—the grand engine by which it is circulated through the frame—though not so often subject to inflammation in the ox as in the horse.

DISEASES OF ANIMALS.

The principal diseases of the horse are connected with the circulating system, arising from the habitual state of excitement in which the animal is kept in order to enable him to execute his task; the heart and the blood-vessels often acting too impetuously, and leading to congestion or inflammation—the latter either local or general—disturbing the function of some organ, or occasionally extending to the entire frame.

Inflammation is the opposite of *Congestion*, consisting, as it does, in an active state of the capillary arterial vessels—the blood rushing through them more impetuously in a diseased than in a healthy habit, from the excited state of the nervous system. When general, it assumes the name of fever, general or constitutional inflammation, or idiopathic; sympathetic, or symptomatic, if depending on some local affection or cause. Fever, therefore, may arise from abnormal general capillary action, with or without any local affection; or it may be the consequence of the sympathy of the system with inflammation in some particular part. The first then is idiopathic, the last symptomatic fever.

Congestions of various kinds present themselves. The blood may loiter in the complicated vessels of the liver, until the covering of that viscus has burst, and an accumulation of coagulated blood has presented itself; or it may constitute the swelled legs to which horses are subject when they stand too long idle in the stable; or it may show in the accumulation of serous fluids in various parts of the body—the chest, the abdomen, the brain, or elsewhere.

It is the special vocation of the Antiseptic practitioner to

anticipate, prevent, arrest, or cure any such abnormal functional action ; for inflammatory fermentive action is the rudimental cause, or concomitant, of nearly all the diseases that flesh is heir to.

We shall proceed, very briefly, to trace rudimental organic structure from the organic fibre—its state of ultimate division, up to the complete organism ; developing, at every step, the beauty, harmony, and determinate purpose of nature's handiwork. We shall then be the better prepared to determine what constitutes disease ; what changes from health are produced by disease ; how these changes may be known ; how diseases are produced, and how they may be obviated.

Health is indicated by the appearance of the body which is natural to it. It is maintained by the normal action of the vital principle, insuring the performance of the functions in a natural and proper manner ; and every deviation from this appearance or action constitutes disease.

ANIMAL ORGANIZATION.

Membrane is the simplest structure of any of the organized parts of the animal frame ; it is the most extensively diffused, and exists in the greatest proportion. The coverings of the body at large, beneath each of its individual parts, both internal and external, are principally composed of membrane, and it lines all the cavities in which the different organs are situated. It constitutes the mean bulk of the bones, and determines their figure—the earthy matter upon which their strength and hardness depend being merely deposited in a tissue of membranous cells. It enters into the structure of muscles, not only providing them with a proper sheath, or inclosure, but the same matter is interposed between their fibres, separating them into bundles,—covering these individual bundles in turn, and separating these again into still smaller bundles, until it appears at length to envelop each individual fibre. It forms nearly the whole bulk of the tendons by which the muscles are attached to the bones ; of the ligaments by which the bones and other solid parts are connected together, and the cartilages which form the basis of many parts of the body, supplying the place of bone ; and it also covers the ends of

of the bones, and assists in forming the joints. It enters largely into the composition of the hair and similar parts connected with the surface; composing, besides, what is called the cellular tissue—a series of cells, formed by the interstices occurring in the fibrous texture which extends over the great portion of the body, fills up the intervals, and serves to reunite the different parts unto each other.

The glands of the absorbent and secretory system are chiefly composed of membranous matter. The brain is enveloped in a membranous covering, and it is possible that the nerves themselves are composed of a series of fibres enclosed in membranous sheaths, like the muscles. The stomach and bladder, and all the sacs found in different parts of the body, are entirely composed of membrane; and it composes the principal part of the tubes and vessels with which the body is supplied, so that it exceeds in quantity all the other solids of the body put together—the enamel of the teeth being the only part in which it has not been detected; so that were it possible to remove the earth of the bones, the muscular fibre, the nervous matter, the fat,—to empty the vessels, and to carry off the fluids generally, the size and figure of the body would remain nearly unchanged. Membrane, therefore, forms the connecting medium, and the basis in which the particles of other matter is deposited. Its mechanical structure, then, resembles a cellular web, and its ultimate composition appears to be an assemblage of lines or fibres; and by mechanical divisions, or maceration in water, all the solid parts of the body may be made to assume the appearance of fibres. The cellular structure, then, the mucous membrane,—with its glandular accompaniments covered with an unctuous semi-fluid substance, and forming the passages that open to the atmosphere; the serous, with its thin, dense, smooth, compact structure, formed in the close cavities within the body,—and the fibrous, dense, thin, and smooth, composing the periosteum surrounding the bones; the *dura mater*, lining the skull, and the membranous expansions surrounding the muscles; the capsules of the joints, and the sheaths of the tendons, of which we shall have much to say presently,—are, one and all, composed of membrane, or fibre in a less compact or more condensed state, as it may happen. This brief statement presents an accurate general view of the constitution of animal organism.

CIRCULATION OF THE BLOOD.

The heart moves from the first days of the existence of the embryo till the instant of death by disease, violence, or decrepitude. The quantity of the blood varies according to numerous causes. The volume of the venous blood is greater than the arterial, occupying larger vessels than the arteries.

The circulating path of the blood being continuous, and the capacity of the canal variable, the rapidity of the fluid's motion must vary in like manner; for the same quantity must pass through all the points in a given time.

The blood is homogeneous from the last ventricle of the heart to the last division of the aorta; but having arrived at the small divisions, its elements separate—at least there exists a greater number of parts, such as the serous membranes, the cellular tissue, the tendons, the aponeuroses, the fibrous membrane, &c., &c., into which the red part of the blood is never seen to penetrate, and the capillaries of which contain only serum, one of the components of the blood volume. The separation of the elements of the blood takes place only in a state of health; and when the parts become diseased, it often happens that their small vessels are found to contain blood, possessed of all its characteristic properties.

The analysis of the blood, then—the separation of its elements—is accomplished in its course through the small vessels: sometimes the serum escapes, and spreads on the surface of the membrane; sometimes the fatty matter is deposited in cells—here the mucous, there the fibrin, elsewhere the foreign substances which are accidentally mixed with the arterial blood. In losing their different elements, the volume assumes the qualities of nervous blood; whilst the arterial blood supplies their losses, the small veins absorb the substances with which they are in contact. In the intestinal canal they absorb the drinks; and the lymphatic ducts pour the lymph, and the lacteals the chyle, into the nervous system. It is clear, then, that the venous blood cannot be homogeneous, but that its composition must vary in the different veins. Having reached the heart, the elements of all mix together; and, after thorough com-

mixture, pass into the pulmonary artery, to circulate once more through the lungs, and by exposure to the oxygen there derived from the air at the instant of inspiration, become converted anon into arterial blood, to be reconveyed in a ceaseless round throughout the entire system.

It is a general law of the economy, that no organ can continue to act without receiving arterial blood;—that no part, not even the bones, are without arterial termini—their minute extremities penetrating into their inmost recesses, to nourish and to quicken them;—and from this results, that all functionary action is dependent on the circulation. But the circulation, in its turn, cannot continue without the respiration by which the arterial blood is formed, and without the action of the nervous system, which has a great influence upon the rapidity of the current of the blood, and upon its distribution to the organs. By the action of the nervous system, the motions of the heart and the general quickness of the course of the blood are either accelerated or retarded. Thus the circulation is maintained by the action of the heart, while the blood is passing through the arteries;—by the muscular power of the capillaries—dependent on nervous energy—while it permeates those little vessels;—by the pressure of the muscles and the valvular apparatus of the veins in some part of its course through them;—and by atmospheric pressure, and the principle of the pump through their whole extent.

The accelerated motion of the heart becomes apparent by the manner in which the point of this organ strikes the walls of the chest. The difficulty of capillary circulation is evidenced by numbness; and of pulmonary, by a threatening of suffocation more or less marked.

The Nervous System.

The nerves, like the blood-vessels, in their course through the body, communicate with each other; and each of these communications constitutes what is called a *plexus*, from whence branches are again detached to different parts of the body. The use of the nerves is to convey impressions from all parts of the system. The beginning of motion in the animal economy is generally dependent on or connected with sensation; and the ultimate effects of such motion are actions depending immediately upon the contraction of moving fibres, between

which and the sentient extremities the communication is by means of the brain.

Sympathy.

It is easy, then, to conceive how the whole body is sympathetically connected together, and dependent the one part upon the other—thus constituting a universal reciprocating sympathy; though in some cases we find parts more intimately dependent, constituting a particular sympathy. It is easy to see how local or organic inflammation may generate fever—how the constitution may become affected in a secondary way, either by the irritation which a local affection produces, or by the extension of specific action.

There may be the sympathy of equilibrium, in which one part is weakened by the increased action of another; and the sympathy of association, in which two parts act together at the same time. The last is produced suddenly, and lasts but for a short time; the first is produced slowly, and continues to operate for a much longer time.

Sympathetic action is very apparent in the case of inflammation of any of the viscera or organs—the stomach, liver, intestinal or genital organs; and the action of the stomach is intimately dependent on the brain, being weakened, in the human being more especially, when the action of the brain is increased; as we find in inflammation of that organ. The brain again is affected with pain when the stomach is weakened from intoxication or other causes; and the mutual dependance and sympathy is as marked, in a special sense, in the inferior animals, as amongst the sons of humanity.

The skin also sympathizes with the parts below it. If the internal parts be inflamed, we have only to increase the action of the surface by applying the appropriate stimulant, with friction, to lessen or remove the disease below. When the stomach, intestines, or kidneys are irritable, the application of the appropriate stimulant, with friction, has unfailingly acted like a charm; and in deep-seated inflammation of the breast, bowels, or joints, no better remedy is known than the Antiseptic Lotion, applied with persistent friction, which supersedes the antiquated specifics approved by blister and lancet. The Antiseptic Lotion and Salves act through the skin on the parts which it covers—however deeply seated; and the Medi-

cine on the mucous membrane lining the interior and its connections—speedily extending its inherent curative influences throughout the entire system.

OPERATIONS.

We do not presume to dictate to owners of domestic animals in the matter of operations; for we exclude such, as much as possible, from Antiseptic Practice, with the exception of setting of joints, and the replacing of fractured parts. Yet, it is well known there are many who are partial to the use of the knife. We do not presume to do more than advise—we do not desire to travel out of our province; nevertheless, if such owners should still be disposed to retain their partiality for operations, we now, very respectfully, beg to repeat for their future guidance what we have remarked in our Treatise on Human Beings, viz.: That deliberate preparation should be made for every operation, by administering a preliminary dose of the Antiseptic Medicine,—by such precautionary measure, anticipating and arresting any possible nascent inflammation:—and that after the operation has been successfully performed, the Antiseptic Lotion should be employed as a detergent, deodorizer, mild styptic, and healing fluid, and to serve as an efficient agent to aid nature in inducing healthy functional action, and to promote, by anti-phlogistic and septic action, the kindly union of the parts by first intention. The internal use of the Medicine, combined with the topical use of the Lotion, will never disappoint in insuring comparative immunity from unnecessary pain and suffering, and a fortunate issue, — unless in exceptional instances, involving the abuse or misapplication of such unfailing curatives.

CLASS I.

THE HORSE.

THE principal diseases of the horse are connected with the circulatory system, and induced by the habitual excitement in which the animal is kept, in order to be in condition to accomplish his task. The heart and the blood-vessels are kept in a state of violent and impetuous action; the blood current is hurried along with rapidity, and congestion supervenes, resulting in pneumonia, pleurisy, inflammation of the feet, or some particular part; which, if neglected, will speedily terminate in disturbing the functionary action of the whole frame.

The pulse is the true indication of the *temperature* of the system, and the *velocity* of the blood current. In the farmer's horse, in a state of health, the pulsations count 36 in a minute; in smaller animals and the thoroughbreds, 40 to 42. It may be conveniently felt a little behind the spot where the submaxillary vein and the parotid duct come from under the ear.

But the *character* of the pulse is of great importance. A *quick* pulse indicates irritation and fever; a *weak* pulse indicates feeble action of the heart and debility; an *oppressed* pulse, the enlargement of the arteries and local obstruction.

We have already explained the difference between *congestion* and *inflammation* (see Introduction), and have dwelt on the inherent power of the Antiseptic Medicine as a preventive and curative in both affections, in the article on "Milk and Flesh Productions." A brief description of the independent action of the Antiseptic Lotion, and the reciprocal and combined action of the Lotion and the Medicine, will be found in the Introduction to the present work.

We shall begin, then, with inflammation and inflammatory diseases. The natural heat of the body is increased in propor-

tion to the quantity of blood which passes from an arterial into a venous state, and the rapidity with which it is forced through the capillaries, promoted by increased nervous irritability. Irritability is caused by abnormal intensity of action in these parts—the unnatural velocity of the blood current, the result of nervous irritability, urging it forward with unusual violence,—producing local disturbance, which is speedily communicated to the neighbouring parts; and, unless arrested, may speedily extend throughout the system.

We have dwelt on inflammatory and febrile action in our work on Human Beings, and also in the present work, in the part assigned to the *Diseases of Cattle*; and we shall now proceed to treat of inflammation, idiopathic and symptomatic, in the horse, and its consequences; detailing the particulars of our mode of treatment under the Antiseptic Practice.

INFLAMMATION GENERAL (*Pure or Idiopathic Fever*) arises from want of proper ventilation in the stable, and the habitual inhalation of noxious gases, emanating from fermenting litter and fæces; from unwholesome food; from excessive stimulation and excessive feeding, and other causes. Pure or Idiopathic Fever *does* make its appearance occasionally, and runs its course, unless arrested by timely and judicious treatment.

Symptoms: In animals in general these are almost uniform and identical; frequently preceded by cold and shivering; succeeded by unwillingness to move; a staring coat; cold legs and feet; followed by heat throughout the body; unequal distribution of heat in the limbs; pulse quick, soft, and indistinct; breathing frequently laborious; absence of cough, and looking at the flanks; animal almost rejects food; supervening costiveness; shivering fit occasionally returns daily at a certain hour, and is succeeded by a warm one, until the superabundant caloric in the system is ejected or expelled, in the form of sweat, from the exterior surface of the body. This is nature, by a natural process, relieving herself, without the aid of our Antiseptic, or any other adventitious remedy. But, by culpable neglect, in all such cases, and delaying to come to the aid of nature in time, we are taxing her unfairly and unnecessarily. Whenever an unnatural temperature is indicated, and inflammatory or febrile action betrays itself, we should have immediate recourse to the Antiseptic Medicine as the certain means of cure; and thus arrest and strangle disease in its birth,—by such

timely intervention sparing all future possible suffering to the animals, and avoiding the ultimate danger of fatal consequences. A dose of Antiseptic Medicine should be administered at once, to reduce febrile action and restore the normal temperature (see Table of Treatment); and the dose should be repeated, and the treatment continued, until normal functional action be resumed. This course should be adopted on all occasions; and the Antiseptic Medicine will soon be as habitual and familiar in every stable as food rations; for unless a state of perfect health be preserved amongst the stock, the best animals will but render imperfect service, on the best of provender. (See also, Inflammation, in what it consists, p. 28; Inflammatory Exudation, p. 48; in our work on the Diseases of Human Beings. Also, Inflammation of the Lungs, under the head Cattle, in the present work.)

INFLAMMATION LOCAL (*Symptomatic Fever*) arises from increased capillary action in any part.

INFLAMMATION OF THE LUNGS (*Pneumonitis*).—After he has been put to work there is no animal so liable to disease as the horse, and before breaking there are few so exempt from it. The deep breathing of a horse at speed is caused by the necessity for a more ample supply of pure blood to sustain the energies of life under the requirements of violent exertion,—testing both speed and endurance. No wonder, then, the diseases of the respiratory organs should be amongst the most serious to which the equine tribe are subject. A horse may be serviceable, though afflicted with many diseases; but a horse with diseased lungs is absolutely worthless; for to accomplish a *perfect* cure, by adopting the ordinary means is almost impossible,—time, money, trouble, and loss of long service are to be estimated and placed on one side the account, and the bare possibility of an ultimate partial cure on the other. No more common cause for this serious affection suggests itself than sudden change from heat to cold, to which the horse is necessarily so subject. The temperature of the stable is several degrees above that of the open air; the energies of the parts become weakened and exhausted; and on being sent out of doors, and the lungs exposed to the impinging action of a rarefied, and perhaps frosty atmosphere, the frequent result is inflammation of the cellular texture—the substance of that delicate organ.

In passing through the capillaries of the lungs, the venous

blood undergoes the change—by exposure to the oxygen of the atmosphere—which frees it of the carbonic impurity—the poisonous principle—which it acquired in its progress through the circulatory system; and thus regains its fitness for the ordinary purposes of life, and enables the animal to employ his energies in accomplishing those surprising feats which often astonish the spectator—sustaining a speed and evidencing an endurance which could be alone attained by the expansion and contraction of a full and ample chest, furnished with a volume of lung faultless in substance, sound in the fibrous and cellular tissue, and its accompanying minute, delicate, and extremely ramified system of blood-vessels. The connection between the pulmonary and cutaneous functions are intimate and sympathetic; and this is very perceptible in the case of repressed perspiration, when cold and cough are the natural consequences. A horse from the warm stable is turned shivering into the frosty air; or, after violent exercise, stands, dripping with perspiration, in a similar position, when the discharge from the skin is suddenly arrested—is thrown inward on the lungs; inflammatory action results, and if not instantly arrested by timely treatment, acute inflammation supervenes, with its frightful consequences in prospect.

We have already alluded to the prejudicial effects of imperfect ventilation, and the contaminating and poisonous vapours arising from corrupting litter, fæces, and urine,—damaging both to the organs of sight and respiration. Inflammation of the substance of the lungs is frequently sudden in its attack.

Symptoms: Oppressed and indistinct pulse; extremities cold; nostril expanded; head hanging out listlessly; heaving in the flank; the air drawn in with one hurried and powerful effort, while two seem necessary in expelling it; membrane of nostril intensely florid; anxious countenance; forelegs striding, as if to aid the expansion of the chest; unwillingness to move; persists in standing day and night; and, if he lies down, he is up again in a moment.

This disease may, if not arrested by timely treatment, prove fatal in twenty-four hours; or it may last longer, till mortification and putridity ensue—the result of recent and violent inflammation.

Treatment: The Medicine must be had recourse to (see Table of Treatment) immediately on perceiving the first premonitory

symptom ; because, if this affection be not taken on the instant, the consequences of the inflammatory action may materially lessen, if not permanently destroy, the usefulness of the animal. *Thick wind, broken wind, or chronic cough,* may result ; and may even determine in *roaring* ; materially depreciating the usefulness and sale value of the animal. If the symptoms should not moderate, the dose must be repeated in half-an-hour, or an hour ; and again repeated at longer or shorter intervals—depending on the mitigation, or aggravation of the symptoms. The treatment must be continued with discretion and judgment until a cure be effected ; and must not be laid aside until we are well assured that there is no danger of relapses. The Lotion, with persistent friction,—the hand being covered with a hair-cloth, or coarse woollen glove, or, if preferred, the friction or flesh brush (see Table of Treatment and Antiseptic Lotion) must be used from the outset over the entire pulmonary region ; and the conscientious groom, or tender, or the intelligent owner will not begrudge a little well-bestowed labour,—perhaps saving, by such means,—the one his charge—it may be a favourite—and the other, a valuable animal. If the character of the pulse should indicate the presence of any obstruction in the digestive organs, especially any intestinal obstruction,—let the Injection be employed immediately—as, in such cases, the effect will often be marvellous and speedy in mitigating the symptoms indicating disturbance in an existing organ. (See Consumption, Pulmonary, p. 52 ; Inflammatory Exudation, p. 48 ; Inflammation, in what it consists, p. 28 ; and the work, Diseases in Human Beings. Also, Introduction, Sympathy ; and Fever, Inflammation of the Lungs, &c., under the head Cattle, in the present work.)

INFLAMMATION OF THE PLEURA (*Pleuritis*).—We have just been addressing ourselves to inflammation of the substance of the lungs ; but pleurisy consists in inflammation in the membranous covering. The causes are the same as in the preceding disease. The guiding distinction will be the pulse. Instead of **OPRESSED**, it will be rather **HARD** and **FULL**.

Symptoms : Extremities cold ; membrane of the nose intensely red ; sensation of pain in the side, on pressure ; stands astride, as in former disease, and for like reason ; neck extended listlessly ; inflated nostrils.

Treatment : Will be the same as in inflammation of the lungs.

The application of the Lotion, with persistent friction (see Inflammation of the Lungs, and Table of Treatment), will be especially serviceable in this alarming affection, to exhaust, by absorption, the exuded fluid. This will aid, in an efficient manner, the other steps recommended in the treatment of inflammation of the lungs; but it must never be forgotten, that the removal of an existent obstruction, in a distant part, may have an *instant* and *marvellous effect* in mitigating the symptoms in any disease; and this through the operation of universally reciprocating sympathy. (See Sympathy; Introduction to present volume.) The removal of an obstruction, for instance, from the intestinal canal, by means of the Antiseptic Injection, communicating instantaneous and sensible relief to an organ or part however distant; more especially where acute inflammatory or febrile action prevails. (See Inflammation of the Pleura, Pleurisy, p. 54, in our work on the Diseases of Human Beings. Also, Inflammation Local; Symptomatic Fever; Inflammation of the Lungs, under the head Cattle, in the present work.)

INFLAMMATION OF THE LINING (*Petuitory*) MEMBRANE OF THE NOSTRILS AND ITS CONNECTIONS; CATARRH.—A frequent occurrence, and if treated immediately, very easily subdued.

Symptoms: Nostrils obstructed, and pouring forth a thick acrimonious ichorous fluid, which excoriates the skin as it descends; fauces sore; lungs loaded; cough painful and frequent; coat slightly roughened. If not taken in time, this disease may degenerate into bronchitis, catarrhal fever, rheumatism, or some other chronic or acute affection.

It frequently arises from repressed perspiration; and removal to a warm well-ventilated stable, or stall, with a dose of the Antiseptic Medicine, and diluent drinks and mashes, will generally be sufficient to effect a cure. Do not desist, however, until the disease succumbs; for a relapse is common; however, a repetition of the dose, at intervals, till all inflammatory symptoms have disappeared, — continuing at same time to supply diluent drinks and mashes, in a moderately warm, well-ventilated stable, will generally be sufficient to effect a cure.

CATARRH (*Epidemic*) *Distemper*; *Influenza*.—The attack is sudden, and may differ from the last in the originating cause.

Symptoms: Fever, with strikingly depressive inflammation of the lungs; shivering, succeeded by fever; mouth hot; great

heat of the skin; heaving of the flanks and cough; eyes red and heavy; membrane of nose red; pulse peculiarly quick and irregular; nostril and throat inflamed; discharge from nose, first watery, and afterwards thickening, and becoming offensive; animal coughs as he drinks; stamps with his feet; great supervening weakness; supports himself by leaning against the side of his stall, or box; legs swell; enlargements in the chest and belly—though these are not unfavourable symptoms;—pulse rises to 60 or 70—depending on intensity of accompanying fever.

Treatment will be the same as in catarrh and inflammation of the lungs, and pleura.

INFLAMMATION OF THE BRONCHIA (*Bronchitis*).—Here the catarrh extends along the passages, to the entrance to the lungs; causing laborious and suffocating breathing, accompanied by a stridulous noise; a short dry cough, relieved by the coughing up a concrete membranous mucus.

The treatment will be the same as in inflammation of the lungs and inflammation of the pleura; and the application of the Lotion, with persistent friction (see Table of Treatment), over the chest and the line of the bronchial passages, cannot fail to give immense relief in this affection. (See Inflammation of the Bronchial Tubes, under head Cattle, in present work.)

INFLAMMATION OF THE AIR PASSAGES (*Chronic—chronic cough*): The trachea, the bronchia, the membranes, or the substance of the lungs may be affected; and the cough arises from the sudden and violent expulsion of air, caused by some local irritation in the organ or the air passages. It generally arises from pre-existent and violent inflammation.

Treatment: We must rely on the alterative effect of the Antiseptic Medicine; and let a dose be administered immediately. (See Table of Treatment.) The removal of a chronic affection may take some time; the medicine must be repeated, as a constitutional dose, at least twice a day, till the disease succumbs to the energy of the alterative.

INFLAMMATORY AFFECTION OF THE LUNGS, if arising from natural imperfection or disease (*thick wind*).—If not arising from natural imperfection, it arises from the coagulation of exuded fluid—the result of inflammatory action—and its deposition in the substance of the lungs, or the bronchial passages. It often precedes *broken wind*; because the violent exertion

expended on contracting the air cells will very probably rupture them ; and then you have *broken wind*.

Treatment : The alterative and absorbent action of the Antiseptic Medicine, if administered as a constitutional alterative, may have the effect of ultimately removing the bronchial or pulmonary obstruction by its alterative and absorbent action, improving, at the same time, the general habit of the animal—if so, this would at length remove the cause of the forced and constrained action,—the result of disease—and effect a cure at a trifling cost. It would also prevent *broken wind* following. The owners of thick-winded horses should lose no time in resorting to the likeliest remedy.

BROKEN WIND is a consequence of the previous affection. The inspiration is performed by one effort ; the expiration by two. We have above explained it as a rupture of the air cells of the lungs. It is accompanied by a dry and husky cough. It may arise from putting a horse suddenly to smart work, after an unusual bellyful of bulky and innutritious food—such as inferior hay or straw. High bred, and high fed, horses are seldom broken-winded ; but we find such generally in the farmer's stable, who prides himself on cheap feeding,—though any resulting advantage be attained at the expense of his horse's health and usefulness.

Treatment : The cure of a broken-winded horse no intelligent man would attempt—though we may try something in palliation. The violent excitation of the lungs in such animals causes local inflammation. By administering the Antiseptic Medicine timeously, and as a constitutional dose, to such animals, the inflammatory action will be prevented, and the difficulty of breathing will be sensibly diminished. Neither owner nor ploughman could err, on convenient occasions, in administering the Medicine till slight purging be induced.

INFLAMMATION OF THE STOMACH (*Gastritis*).—This is not a common disease in the horse. It is either phlegmuous, or erysipelatous.

It arises, occasionally, from taking large draughts of any cold liquor into the stomach when much heated, after violent exercise ; from taking acrid or corrosive substances into the stomach ; from eating poisonous plants, like the yew, hemlock, water parsley, water dropwort. Arsenic and mercurial and corrosive compounds of various kinds, are frequently administered inter-

nally as vermifuges—externally as vermin destroyers ; as cures for *mange* and *ulcers*—and death often ensues in consequence.

Before proceeding to *symptoms*, or *treatment*, we must notice a few preliminary specialties which it will be necessary to keep in view.

In proportion to his size, a smaller stomach has been given to the horse than to any other animal. In proportion to his bulk, it is not half so large as that of the human being ; consequently, in a short time he will eat more than the stomach will hold ; and room can only be found for fresh food by discharging what he has swallowed previously from the stomach, through the pyloric orifice, into the first intestine. A horse will also drink more at once than the stomach will contain ; and, even if he should drink a less quantity, it will not remain in the stomach or small intestines, but passes into the cœcum ; where it is retained, as in a reservoir, to supply the wants of the system.

We dwell on this latter fact to show how easily the stomach, the small intestines, with their convolutions, and the cœcum, are within reach of the Antiseptic Medicine when administered by the mouth ; and when administered, in the form of injection, by the anus, the rectum and the colon, are equally within reach—thus communicating again with the cœcum : so that the whole intestinal tube and its connections and convolutions, from the mouth to the anus, in the horse, can be at once cleared out,—relieving local obstruction,—removing oppression throughout, and aiding the free action of the heart and the nervous power in forcing the stream of life along ; relieving the vessels where overloaded and gorged with blood, and unnaturally distended with imprisoned caloric—thus acting *mechanically* in relieving inconvenient pressure, and *chemically*, by attracting superabundant caloric and carrying it clear out of the system ; the antiseptic and alterative power of the Medicine, at the same time, attracting and neutralizing the deleterious effects and malignant action of latent putrefactive agencies, wherever encountered ; and by its inherent refrigerant action—attained by the associated, combined action we have already explained—ensuring the certainty of speedy relief to the circulatory system—a relief quite as efficient as bleeding could afford, whilst the animal will suffer little reduction of strength, and be ready for work again very speedily—due attention being paid to generous but careful

feeding—having lost little or none of his condition under such a humane and judicious course of treatment.

In preparing and administering our draughts and injections, we must keep steadily in view that, though the stomach be exceptionally small, and does not retain liquids long, the intestines are both voluminous and capacious; extending in a full-grown horse to 90ft. in length: the small intestines measuring 66ft., and the larger 24ft. The small intestines will contain about eleven gallons; the cœcum four gallons; and the colon no less than twelve gallons of liquid.

Symptoms: Phlegmenous Gastritis is evidenced by violent burning pains in the stomach; great soreness; distension and flatulency; distressing thirst; restlessness; succeeded by great debility; and a quick, hard, and contracted pulse. It is difficult to distinguish it from inflammation in the intestines.

Erysipelatous Gastritis arises towards the close of other diseases, marking the certain approach of dissolution.

Treatment: We have here inflammatory, and it may be phlegmenous or erysipelatous action to contend with. Can it, then, be for a moment doubted that the Antiseptic Medicine (see Table of Treatment) is the true remedy? Its antiseptic components will at once address themselves to arrest any phlegmenous or erysipelatous action; and their associate components will attract the superabundant caloric, allay nervous irritability, and annihilate inflammatory action. Let it be borne constantly in mind that the inherent power of the Antiseptic Remedy, in contending with congestive, inflammatory, phlegmenous or erysipelatous action, depends on its chemical composition. It supplies to the system the components necessary to enable it successfully to combat and subdue either of these abnormal states; affording to the system the opportunity of free election amongst these components—when, by natural chemical election, it will take what it needs at the moment, rejecting the rest. We do not say that the *same* component acts in a *different manner* under *similar conditions*; but that the *associate* components—the *one or the other* amongst them—is armed with the inherent power to combat any one of the states we may have to contend with in gastritis—the inflammatory, the phlegmenous, the erysipelatous; and that the system is left to select or choose for itself, the component which will certainly relieve it, and arrest abnormal action. Besides, by the

associate action the circulatory system will be as certainly and effectually relieved as by a severe bleeding—whilst bleeding is a sure way to weaken the animal—depriving him, at the same time, of a large portion of the stream of life—his life's blood—and the recuperative power necessary to insure immediate recovery after humane and judicious treatment. Let the Antiseptic Medicine, then, and the Antiseptic Emollient Injection be both called into requisition; the Medicine to precede the Injection—to be repeated, the one or the other, or both, according to the urgency of the symptoms. The Medicine should be repeated every half-hour, till relief be obtained. But the Antiseptic Lotion, with persistent friction, using the hair, or coarse woollen glove, or flesh brush, and applied over the left side of the belly, and over the seat of the stomach within, might aid materially in giving relief to the violent burning pain in the interior, by attracting the superabundant caloric to the surface; and, by such means, reducing the inflammatory action within—the primary cause of suffering. We need scarcely waste time in urging the propriety of such an obvious step. An animal so treated will be ready for work again, and will show in full vigour immediately. Thus the owner, for a mere trifle, saves his horse, and can put him to work again without loss of time—instead of wasting time and money in recovering his condition before he can be serviceable. (See also remarks on the action of the Antiseptic Lotion; and the combined action, external and internal, of Medicine and Lotion, in the Introduction to the present work. See Table of Treatment; Milk and Flesh Production, and Inflammation of the Stomach and Bowels, in our work on Human Beings, p. 58.)

INFLAMMATION OF THE BOWELS OR INTESTINES.—Of these there are two varieties:—

1. Inflammation of the external coats of the intestines.

The causes of this complaint are much the same as those of gastritis. If a high-fed and well-groomed horse, after violent exercise and long fasting, and perhaps sweating at the moment, be allowed to drink freely of cold water, to be drenched with chilling rain, or have his legs and belly washed with cold water, inflammation of the bowels will frequently follow; and if subject to lung complaint, inflammatory action will probably begin there.

Inflammation of the external coats is accompanied by fever and costiveness; and the primary costiveness is often long con-

tinued and obstinate; with indurated fœces; spasmodic colic; intromusception or strangulation of some part of the intestinal canal; application of cold to the lower extremities, or to the belly itself.

Inflammation of the internal or mucous coat may arise from an overdose of physic; from taking acrid or corrosive substances into the stomach, producing violent purging.

Inflammation of the external coats is a frequent and fatal disease; and unless arrested on perceiving the first symptoms, it soon runs its course; so the symptoms should be made familiar, and the groom, or ploughman, should be ever watchful; and ever after avoid the ruinous practice of bathing the belly and legs of a horse with cold water when warm after exercise.

Symptoms: Restlessness and fever precede the attack, followed by acute pain extending over the whole of the abdomen. This may be preceded by shivering; mouth hot; pawing; striking at the belly; looking wildly at the flanks; groaning and rolling; thirst; quick and hard pulse.

Inflammation of the external coat is gradual in its approach, with previous indication of fever; quickened pulse; small and sometimes scarcely perceptible—changing to bad occasionally; legs and ears cold; belly exceedingly tender and painful to the touch; motion increasing the pain and the energy of the pulse; pain continuous; sudden and great weakness, gradually increasing.

Inflammation of the internal coat, with colic, is sudden in its attack; pulse not much quickened at first, and during intervals of ease; but evidently fuller; legs and ears of natural temperature; great ease obtained from repeated friction over the belly; ease from motion; intervals of rest; strength not perceptibly affected.

Treatment will be the same as in pneumonitis (inflammation of the lungs) and pleuritis (inflammation of the pleura), and must be equally prompt and energetic. There is no malady that more quickly runs its course than inflammation in the bowels.

The injection must be emollient and plentiful, and injected with Reid's patent pump, so as to penetrate beyond the rectum, and reach the colon and cœcum, and provoke them to evacuate their contents completely. Drinks of thin tepid gruel may be

offered, alternating with the doses of the Medicine to be taken by the mouth.

But the employment of the Lotion, with persevering friction, with the hair or coarse woollen glove, or flesh brush, will be of great importance in attracting the superabundant caloric—the cause of the inflammatory action within—to the surface; and the friction must be applied as nearly as possible over the seat of the disease, and continued perseveringly until relief be obtained. The friction should be continued downwards over the legs; and the air of the stable should be kept pure and moderately cool.

Nothing beyond bran mashes; and if it can be procured of good quality, perhaps, a little green meat should be allowed; and the emollient injections should be continued for three or four days after the inflammation subsides, and the friction continued for the same time.

If violent purging should arise from inflammation of the internal or mucous coat from the causes we have already named, we should nevertheless employ the emollient injection, with gruel, thin starch, or arrowroot, and take care that these emollient drinks should alternate with the doses of the Medicine. The friction should be continued at intervals over the belly and the legs till relief be obtained; and the treatment should be continued for some days after the inflammatory action has become exhausted.

When the symptoms are urgent, the doses of Medicine must be repeated every half-hour; and the intervals may be prolonged as the violence of the symptoms lessens.

If green food should cause the purging, a dose of the Anti-septic Medicine will, by its chemical action, allay the irritation (see Milk and Flesh Production, independent and combined action of the Lotion and Medicine, in the Introduction to the present work); and, if necessary, it should be followed up by emollient drinks of gruel, thin starch, or arrowroot.

We would here remark, so as to save the necessity for repeating it, that we are decidedly against the purging system. We believe it to be most prejudicial. But we recommend the Anti-septic Medicine as a constitutional dose, proper and safe to be administered on every occasion of functional disorder; as, from its chemical composition and action, already fully explained (see references appended to Inflammation in the Stomach—Gas-

tritis), it cannot fail to bring relief in purging—the affection we are at present dealing with—or wherever any obstructive, congestive, inflammatory, or phlegmenous symptoms present themselves.

The Medicine will always act more quickly, freely, and certainly if the horse be prepared for it by two or three good bran mashes (unless in cases of great urgency, when it must be administered immediately), so as to soften the fœces and lubricate the intestinal tube; and after Medicine, or several doses of Medicine, gruel, thin arrowroot, or sago should be offered without fail. A horse should never be exercised after taking Medicine, and his drink should be tepid, and not cold. A horse should be regularly mashed during the entire period of his taking Medicine. Overpurgation produces weakness, and a horse's spirit flags; and the abnormal irritation in the intestinal canal may determine in inflammation. The Antiseptic Medicine, in prudent hands, and when used as a constitutional dose, will realize firmness of flesh and insure condition. (See Table of Treatment.)

We have named *Intususception* and *Strangulation, or Entanglement of the Bowels*, as likely consequences of inflammation of the bowels or intestines, accompanied with colic.

In *Intususception* the spasmodic action caused by colic, accompanied by intense pain, may cause a portion of the gut to pass for some length within another portion. There are no known means of relief; and there are no symptoms to indicate the presence of this consequent of inverted action, except the intense pain which accompanies it.

Strangulation, or Entanglement of the Bowels, is also a consequent of colic. Here the ileum becomes twisted in knots, and there is no remedy. There are no symptoms to mark the occurrence, beyond the extreme and protracted torture endured by the animal, though the application of the Lotion may give temporary relief and act as a palliative. (See Inflammation of the Stomach and Bowels, p. 58, in our Treatise on Human Beings; Inflammation of the Bowels, under head Cattle; and Table of Treatment in the present work.)

INFLAMMATION OF THE LIVER (*Hepatitis*).—This disease is apt to be confounded with inflammation of the bowels, and there is scarcely any guiding reliable symptom to distinguish them.

Treatment: Will be the same as in inflammation of the

bowels ; and if there should be any suspicion of liver affection, meanwhile, then the Lotion, with smart friction (see Table of Treatment), must be applied over the hepatic region—on the right side. (See Inflammation of the Liver, p. 59, in our Treatise on Human Beings.)

JAUNDICE, OR THE YELLOWS, arises from an obstruction of the bile in the ducts which convey this secretion from the liver to the intestines. This affection is indicated by yellowness of the eyes and mouth ; and any portion of the skin destitute of hair ; high-coloured urine, and impaired appetite. This affection frequently accompanies inflammation of the bowels or lungs. If it appear without the presence of any other disease, we must endeavour to act on the liver by the Antiseptic Medicine as an alterative, depending on it to restore healthy functional action in the viscus ; and thus succeed in altering the quality of the bile, thus regulating the flow, and removing the obstruction. Thin gruel, arrowroot, or sago should be offered as demulcent drinks, to aid the operation of the Medicine, and lubricate the intestinal canal and its connections. Take care that the stable be well ventilated, and moderately warm.

INFLAMMATION OF THE KIDNEYS (*Mephitis*).—The kidneys separate and carry off the excess of watery fluid and *urea*. This fluid varies materially in quantity and quality ; and irregularity of function in this organ is more easily remedied than in almost any other. In case of inflammatory or febrile action supervening, the Antiseptic Medicine will restore healthy functional action, regulate the flow of the urine, and correct its quality, when necessary. This is of immense importance in the horse ; for he is more subject to effusion of fluid in various parts than any other domestic animal. In our Treatise on Human Beings, we have often dwelt on the inherent absorbent power of the Antiseptic Medicine and Lotion, depending entirely on their chemical composition. (See Inflammation of the Kidneys, p. 62, in our work on Human Beings, and Inflammation of the Kidneys, under the head Cattle, in the present work.)

The more liquid that is swallowed when under Medicine the more will be evacuated, and proportionally less will be retained in the system. *Mephitis* is often caused by unwholesome and musty food—whether hay or oats. Too frequent administration of nitre causes inflammation in this organ ; exposure to drenching cold and wet—especially if overheated after violent

exercise. Inconsiderate and unfeeling horsemen often injure the animals entrusted to them permanently by neglecting, at proper intervals, in travelling on the road or at work, to give their animals regular and timely opportunities for staling—unless under severe pressure, they stand still of themselves and insist on relieving nature. Brutal drivers have been seen to urge on a poor suffering animal with whip and spur—utterly unmindful or regardless of the calls of nature; and the result must frequently be, that from such brutal ill-treatment the animals become permanently, it may be incurably, injured.

Symptoms: Fever; looking towards the flanks; animal stands with hind legs wide apart, marking the disease; straddles as he walks; shows pain in turning; heat in the loins, &c.; expresses pain on pressure there; urine high-coloured, and voided in small quantities; and with violent and painful straining; discharge nearly, if not quite, suppressed; quick and hard pulse, ultimately becoming weak and small. These symptoms are conclusive; and sufficiently indicative of urinary disorder; but still it may possibly be mistaken for inflammation of the bladder.

Treatment: Same as in inflammation of other organs. (See Inflammation of the Lungs, Liver, Pleura, Bowels, &c., under Class I., Horses; and Inflammation of the Kidneys, under Class II., Cattle, and Table of Treatment in the present work; and Inflammation of the Kidneys, p. 62, in our work on Human Beings.) But inflammation of the kidneys may be productive of profuse staling, known as diabetes.

Diabetes, or profuse staling, is dependent on increased action in the kidney, and we must endeavour to abate this abnormal inflammatory action, adopting the same means as in cases of inflammation. It is often caused by the excessive or improper use of diuretics, such as nitre; or from musty or unwholesome food; and, not unfrequently, though this cause is not thought of, from cold and exposure in chilly damp weather.

Treatment: The necessity for the use of the Medicine here is obvious, as in all inflammatory diseases. Let the dose be repeated once a day, or every second day; and let great attention be paid to food, supplying green meat and carrots in moderate quantity; let the stable be kept moderately warm, and well ventilated; and supply demulcent drinks, such as gruel, thin

arrowroot, and sago, to aid the Medicine in allaying the local irritation.

INFLAMMATION OF THE BLADDER.—We have already said that this disease may be easily mistaken for inflammation of the kidneys, and contrariwise.

The urine is conveyed from the smaller reservoir in the centre of the kidney by the ureter, to the larger—the bladder. The distinguishing symptoms between this disease and inflammation of the kidneys are, that there is never a total suppression of urine, and that heat may be felt in the rectum over the situation of the bladder.

It is frequently caused by the improper use of stimulants, and by exposure in damp and chilly weather—a cause seldom thought of—owners seeming to forget that the horse was, originally, an importation from a warmer climate.

Treatment: The use of the Medicine is here specially indicated to remove inflammatory action, allay irritation, reduce the swelling, and remove consequent constriction of the neck of the bladder. Not a moment should be lost in applying the Lotion with persistent friction over the pelvis, and downwards; for we have instances of immediate relief resulting from a proper application of this topical remedy alone. (See Table of Treatment.)

When the inflammation and swelling extend to the neck of the bladder, unless the inflammatory action be timeously reduced, a total suppression of urine is the consequence. Whilst the substance of the bladder alone is inflamed, and before it extends to the neck, producing constriction, the urine will continue to be voided with pain, and with difficulty.

SPRAIN OF THE SHOULDER (*Shoulder Lameness*).—This generally arises from a sudden slip or side-fall, seldom from violent exertion. There will be little tenderness, heat, or swelling; for the injury is deeply seated. The heat and tenderness will be found within the arm, close to the chest, and not elsewhere. The horse will drag his toe along the ground. It will be remarked at once on going down hill; for here additional weight is thrown on the limb, and greater pressure; and when the horse projects one foot before another in the stable, the toe on the lame side will rest on the ground.

Treatment: The Medicine must be administered to aid in removing the deep-seated inflammation which causes the pain, and continued daily until relief be obtained. (See Table of

Treatment.) Let the Lotion be applied with freedom at the same time (see Table of Treatment) over the seat of the injury within the arm, and close to the chest. And let an emollient tepid drink be offered, alternating with the doses, to lubricate the intestinal tube and its connections, and aid the operation of the Medicine.

SPRAIN OF THE BACK SINEWS.—This arises from overwork, or sudden or violent exertion, causing local inflammation, exudation of fluid, coagulation of the same, and adhesion. Occasionally, some of the fibres are ruptured. A slight injury of this sort is called a sprain of the back sinews; when serious, the horse is said to have broken down. The injury appears then to be an inflammation of the sheath of the tendon, or a rupture of the attaching fibres.

Treatment: Administer the Medicine immediately, to reduce the local inflammation, and prevent its generating, by sympathy, general disturbance of the system. Let it be continued every second day, as a constitutional alterative and refrigerant during the entire course of treatment. The Lotion, with friction (see Table of Treatment), must be applied to the part externally, to aid the operation of the Medicine; and the Antiseptic Cloth (see Table of Treatment) must be bound round the part, to aid, by its refrigerant action, in reducing the inflammation, and to act as a support to the weakened or disrupted parts when the lame foot is brought to the ground. The absorbent power of the Antiseptic Remedy will be then acting by three modes of application, in reducing the inflammatory action; and by its absorbent power, at the same time, operating in the exhaustion of the exuded and coagulated fluid; which accomplished, will permit of free and painless action in the injured parts. This treatment must be continued till a cure be completed, or sensible relief be obtained. Let demulcent drinks alternate with the doses; let mash and green food be supplied; and let the stable be well ventilated and kept moderately warm.

SPLINT is universally found on the outside of the small bone, and on the inside of the leg. The inner splint bone receives more of the centre weight of the body than the other, and is therefore more liable to injury. While the splint is forming, the horse is frequently lame; and the lameness temporarily disappears, unless the tumour be near a joint, or interferes with some tendon or ligament. If so, inflammation ensues, and

free action ceases. But all depends on the situation. When might they cause no unsoundness.

Treatment: Apply the Lotion, with severe friction (see Table of Treatment), immediately; and give a dose of the Medicine two or three times a week, to act as a constitutional alterative, and assist the Lotion in reducing the local inflammatory action. Let this course of treatment be persevered in till relief be obtained; and resumed whenever the inflammation threatens to return and impair the animal's usefulness. Be careful as to feeding; and see that the horse stands comfortably in the stable.

WIND GALLS.—These are generally found where the tendons are inserted into the joints; where there is most motion and pressure; and where little sacs or bags are placed, which ooze out or exude fluid, to lubricate the parts; and from violent action, and undue pressure and straining, they take on inflammation; enlarge, and become indurated, causing lameness; but, unless enlarging to a great size, no unsoundness.

Treatment: Apply the Lotion, with friction (see Table of Treatment), immediately; and surround the part with the Antiseptic Cloth or Bandage to ensure moderate tension, and give support—aiding the Medicine in the work of absorption, and restoring natural functional action in the part; reducing the size and removing unnatural hardness. Let a dose of this Medicine be administered two or three times a week, to act as a constitutional alterative, and aid in removing inflammatory action—improving at the same time the general habit and condition.

Attention must be paid to feeding and ventilation; and the animal must stand comfortably in his stable.

RUPTURE OF THE SUSPENSORY LIGAMENT.—The suspensory ligament is occasionally ruptured from extraordinary exertion; when the fetlock almost touches the ground. In this case the horse will be able to bend his foot. This is almost a hopeless injury, and the horse never becomes perfectly sound.

Treatment: Let the animal be swathed round with the Antiseptic Cloth (see Table of Treatment), and kept at perfect rest. Take care that the Cloth be constantly moistened with the Lotion, and let a dose of the Medicine be administered two or three times a week, to act as a constitutional alterative and refrigerant, to arrest and subdue excessive

inflammatory action, beyond what nature requires, in the process of reunion of the injured parts. Continue the mode of treatment steadily, and have regard to careful feeding, ventilation, and cleanliness; and keep the stable at a moderate temperature.

GROGGINESS.—This is a peculiar knuckling over of the fetlock joint, and tottering of the whole fore leg, known by the name of grogginess. Age and overwork are the causes; and there is generally a want of power in the ligaments and joints, generally caused by frequent injuries, cruelty, and ill-treatment, urging the overwrought animal to undue straining and overexertion.

Treatment: If it should have proceeded to ulceration within the joints, the application of the Lotion, with severe friction over the parts (see Table of Treatment), and the constitutional use of the Medicine, as an alterative and antiseptic, two or three times a week, may, together, act as palliatives; but it will be impossible to effect a perfect cure. If such treatment be adopted in time, however, the horse may be preserved in-serviceable condition for many a day—though he may have to lay up occasionally during that period.

CUTTING.—The bruising of the fetlock by the shoe of the opposite foot striking against it. Many horses will cut when they are fatigued, and many colts will do so before they arrive at their full strength. But when, from natural conformation, the legs are placed too near each other, or the feet are turned in ward or outward unnaturally, and if there appear any callous, or sore, from cutting, the animal should be rejected.

Treatment: In all cases, the cut, if any, should be carefully washed out with the Lotion, and dressed with the Antiseptic Salve; and the part should be surrounded with the Antiseptic Cloth, kept constantly moistened, to defend the part and exclude foreign substances, and insure the speedy union of the injured parts.

SPRAIN OF THE COFFIN JOINT.—Here the lameness is sudden, and the heat and tenderness principally around the coronet. This is often mistaken by ignorant persons for lameness in the shoulder; but the heat and tenderness round the coronet, when present, are sufficiently indicative of the seat of the injury. In violent and repeated sprains of the pastern and coffin joints, inflammation of the periosteum ensues, and bony matter is deposited, forming—

RINGBONE, which, commencing about the pastern joint, spreads, not only involving the pastern bones, but the cartilages of the foot. A bony tumour is formed on each side of the foot, and just above the coronet; and this is more frequent in the hind foot than the fore, from the violent action necessary in propulsion forward. The lameness will be, at first, scarce perceptible; but if the horse be at work, the tear and wear is so great in the affected parts, that the bony deposition will increase and spread continually. It may result in fixed joint and loss of motion, and the diseased action may involve the neighbouring parts.

Treatment: The Lotion, with severe friction (see Table of Treatment), immediately, and the Antiseptic Cloth, kept constantly moist, should be used as a covering to assist deposition, and act by absorption. But the chief dependance must be placed on the internal use of the Medicine, and its action as a constitutional alterative—restoring natural functional action, by acting on the secretories; thus preventing abnormal action, and the deposition of abnormal bony secretion. This is going to the root of the evil straightway, and applying the constitutional remedy. The Medicine must be administered, then, as the true constitutional alterative, two or three times a week; and this course of treatment continued until relief be obtained.

STRAIN OF THE ROUND BONE.—Injury in the hip joint—the whirl, or round bone, the head of the femur, or thigh bone—which has, in some rare instances, been dislocated or fractured; but the injury is more generally confined to sprain, and will be evidenced by heat and tenderness in the joint.

Though the injury be deep-seated, nevertheless the Lotion must be applied with persevering friction over the seat of the injury (see Table of Treatment), and the Medicine taken internally to act as a constitutional refrigerant—to keep down any tendency to inflammatory action, and to reduce the local inflammation in the injured part. If this treatment be steadily persevered in, with rest for a reasonable period, in eight cases out of ten the animal will recover to be serviceable, as formerly.

THE STIFLE (*Disease in the Stifle Joint*).—The stifle joint is not often subject to sprain, but the heat and tenderness cannot fail to guide to the seat of injury. If dislocation of the patella should have supervened, the horse drags the injured limb after him, and rests it on the fetlock. In this case the displacement

must be looked to, and the part must be replaced by a veterinary surgeon. If the muscles of the inside of the thigh have been sprained, the diffused heat on the inside of the thigh will point out the true seat of injury.

Treatment: In all these cases, the Lotion (see Table of Treatment) should be applied immediately, with cautious friction over the seat of the injury, and the Medicine administered as a constitutional dose, to aid the Lotion in arresting and subduing local inflammatory action. The Medicine should be given every second or third day, till the inflammatory symptoms disappear, and free action be restored in the injured parts.

THOROUGH-PIN.—Thorough-pin is akin to wind galls, and the treatment will be the same. It consists in an enlargement of the little sacs which contain and exuded mucous fluid to assist in lubricating the parts, and obviate the consequences of inconvenient pressure. Thorough-pin projects on both sides the hock in the form of a round swelling; and unless grown to great size is not attended with much lameness. It is not unsoundness; but, if detected, a purchaser should make sure there is no other fault.

Treatment: See Wind Gall in the present work.

ENLARGEMENT OF THE HOCK.—This arises from sudden and violent concussion; from sudden check, at speed, or from overweight; attended with enlargement of the whole joint, and great tenderness and lameness.

Treatment: This enlargement is the result of acute inflammation, and the Lotion, with friction (see Table of Treatment), must be applied immediately, and the Antiseptic Cloth, kept constantly moist, wrapped round the part; whilst the Medicine must be administered as a constitutional refrigerant and alterative, to keep down inflammatory action; to aid the Lotion and Medicine together, in reducing the enlargement; to prevent its extending over the whole joint; and to arrest disorganization, and restore healthy functional action in the injured part. Let this course of treatment be continued till a perfect cure can be effected, and the recovery will be almost certain; and the animal will be saleable and serviceable for many a day to come.

CURB is an enlargement at the back of the hock, about three or four inches below the point. It is either a strain in the ring-like ligament which binds down the tendons in their place,

or exists in the sheath of the tendons ; most likely in the former.

Unusually sudden and violent action of the limb may cause it ; and it often reveals itself after an extraordinary leap, a hot race over heavy ground, or a sudden check at gallop. Young horses, and those of imperfect form, are most subject to it. Curbs occasion considerable lameness on their first appearance ; and the enlargement is most easily detected by viewing the leg sideways.

Treatment : The Lotion must be applied externally, with smart friction (see Table of Treatment), in the first instance ; followed by the Medicine internally, to act together in arresting the progress of inflammation in the part, and in subduing it quickly. The Antiseptic Cloth, kept constantly moist, must be placed round the part, to cool the part by the aid of evaporation, to help the Medicine and Lotion, applied with friction, to exhaust the inflammatory action ; reduce any enlargement of the part ; and prevent the neighbouring parts being put to the necessity of accommodating themselves to a permanent unnatural enlargement.

BOG SPAVIN.—This may be considered as decided unsoundness. It is a dangerous injury, and too apt to return ; and attended with considerable lameness. It consists in the enlargement of the mucous sacs, which lubricate the joints ; and the joint becoming inflamed from overexertion—pressing on the subcutaneous vein—impeding the blood current, and giving rise to local inflammatory action and swelling inside the hock—called *blood spavin*.

Treatment : Let the Lotion, with friction (see Table of Treatment), be employed immediately, to prevent absorption, and so exhaust the encrusted fluid. Let the part be enclosed in the Antiseptic Cloth, kept constantly moist (see Table of Treatment), to promote the same object, and let the Medicine be taken internally, to act as a constitutional alterative, refrigerant, and absorbent—to aid the external applications in exhausting the inflammatory action ; and, by such means, arresting the excessive deposition of fluid, and absorbing and exhausting any local effusion.

BONE SPAVIN.—This disease arises from the injury sustained by the inner splint bone, which bears almost the whole weight and concussion (being nearer the centre of gravity), and its

ligaments and the substance which connects it with the inner shank bone. In feats of galloping, leaping, and heavy draught, young horses especially are often severely injured. Inflammation of the cartilaginous substance ensues, and it becomes bony; thus undergoing an abnormal change of structure—the result of diseased functional action. This takes place in the inside of the hind leg; because the greater concussion and strain is thrown on the inner splint bones. Bad matter continues to be deposited in the form of a tumour, as in the fore leg, in the point of union of the head and the splint bone with the shank. This is called bone spavin, and is caused, as we have explained, by inflammatory action taking the place of, and preventing healthy structural action—thus converting a cartilaginous into a bony substance. When the joint is attacked, the horse becomes nearly, if not quite, unserviceable.

Treatment: The Lotion and friction (see Table of Treatment) must be at once applied, and the Antiseptic Cloth, kept constantly moist, placed round the part, to aid in arresting the inflammatory action, and in exhausting and absorbing any abnormal deposition. The Medicine must be administered regularly, as a constitutional alterative, refrigerant and absorbent; and this course of treatment persevered in until relief be obtained, and a temporary cure effected; guarding watchfully against any relapse or threatened recurrence of the symptoms by the timely use of the Medicine as a preventive.

CAPPED HOCK is generally produced by blows, from kicking in harness, from lying on too thin a bed, or from sprain. Sometimes the tumour will disappear of itself; but at others it will bid defiance to all the ordinary means that can be employed.

Treatment: Lose no time in applying the Lotion, with friction (see Table of Treatment), covering the part over carefully with an Antiseptic Cloth, kept constantly moist. Administer the Medicine as a constitutional alterative, to arrest and reduce inflammatory action, and to arrest and reduce enlargement. It is of great importance to induce and restore, by such certain means, normal functional action without loss of time; as otherwise a callous stricture may be formed which will bid defiance to the efforts of the surgeon.

MALLENDERS AND SALLENDERS.—In the inside of the hock, and at the bend of the knee, there is sometimes a scurfy eruption, called mallenders in the fore leg, and sallenders in the hind leg.

If treatment be not applied, a discharge proceeds from them, which it is difficult to stop ; and though they seldom produce lameness, they are very suspicious, and have an unsightly appearance, and generally suggest bad stable management.

Treatment : Let the Lotion be employed immediately to wash the part out, and thereafter let it be dressed with the Antiseptic Salve. The Medicine should be administered as a reliable alterative, to correct the humours and exhaust the agent causing the scurfy eruption.

STRING HALT.—This is not unsoundness, but involuntary twitching of the hind leg—a convulsive action of the muscles—denoting an excess of (misdirected) nervous energy, and is often associated with powerful muscular action.

Treatment : If the inside of the thigh and legs were thoroughly rubbed over with the Antiseptic Lotion before leaving the stable, the irregular nervous action would be arrested ; and—tension being given to the muscles—subdued, and the convulsive muscular action would cease.

SWELLED LEGS.—This is a disorder that must be attacked immediately, and it very often speedily yields to energetic treatment.

Symptoms : Quick pulse, considerable fever, with inflammation of the cellular substance of the legs, and copious effusion ; often attacking young horses, overfed and little exercised, and without any apparent ailment. The swelling extends nearly from the stifle to the fetlock, with heat, great tenderness of the skin, and excessive lameness.

Horses in high condition, with full feeding, and remaining several days in the stable without exercise, from want of healthful muscular exercise to utilize the surplus supply of digested nutriment, the veins and absorbents are not aroused into vigorous action, it stagnates in the lower extremities, and is not returned to the heart nor excreted by perspiration. The legs, consequently, become tumefied and swollen from excessive feeding, without corresponding exercise.

Whenever there is a sudden change of feeding—especially from poor to nutritious—without corresponding exercise to exhaust the increased volume of circulating fluid, we run the risk of encountering the disorder we are treating of. If swelled legs should arise from debility, the treatment will be different.

Treatment : If the disorder arise from high feeding and want

of exercise, the remedy in part is obvious—abate the first and increase the second. But, in order to allay all disturbance in the system, and aid in correcting and regulating the flow of the circulating fluids,—we must administer the Medicine as a constitutional dose, to act as an alterative and absorbent; taking care, at the same time, to supplement its action by the use of the Lotion, with friction, over the swollen parts, and swathing them in the Antiseptic Cloth, kept constantly moistened, to aid the Medicine in the work of absorption and correction of the circulating fluids; thus exhausting the supply of unhealthy effusion, and, as a rational consequence, reducing the tumefaction, and restoring healthy functional action to the diseased extremities.

If this disease should arise from debility, the constitutional use of the Medicine, with generous feeding and healthful exercise, will restore vigour and condition—if no chronic diseased action should exist elsewhere in the system.

GREASE.—But swollen legs are apt to degenerate into grease, if the diseased action be not arrested by timely treatment. This arises from inflammation of the skin of the heel—sometimes in the fore, but generally in the hind foot. It is generally caused by exceedingly bad stable management, and many of the poor tenants generally suffer from the same cause.

Want of cleanliness, heels covered with filth and wet, and exposed to slow evaporation in a cold current; aided by inattention to the general habit, and the constitutional medicine; with gross, unwholesome feeding, and want of regular exercise, will very probably result in generating inflammatory action, the fruitful parent of chapping, excoriation, grease, and scurf; and may very satisfactorily account for all those troublesome ailments.

Treatment: Constitutional disorder, the result of neglect and mismanagement, generating inflammatory action, is the primary cause. If so, we cannot do wrong in employing the Medicine as an alterative to correct the humours, and induce healthy functional action. But we must apply the Lotion to wash out the parts clean, and apply the Antiseptic Cloth over the swellings, to attract the superabundant caloric to surface—the original cause of the inflammatory action—and to exhaust its excessive energy by the absorbent and refrigerant action of the remedy; thus aiding the internal action of the Medicine,

busied in correcting and regulating the flow of the circulating fluids ; and thus, by their reciprocal action, exhausting the depraved fluid from within, and ultimately abating the local inflammatory action, and exhausting the greasy exusion. This is the only certain and rational method of cure.

There would be a manifest danger in attempting by sudden and repressive means, and by checking the outward flow of the diseased secretion, to attempt the cure of an unsightly malady ; but we by no means purpose to run such a risk, or practise such an imprudence. We first seek to correct the fluids by defined chemical action, and to a chemical certainty ; as a consequence to lessen the unhealthy action in the diseased parts throughout the substance, and externally ; and, by a sure and graduated progressive action, to exhaust the abnormal supply from within,—reduce the tumefaction ; heal the unsightly surface ; and restore external symmetry and beauty—if indeed neglect and mismanagement should not have rendered such a result impossible.

One last caution we cannot withhold. If hand-rubbing, or dry brushing will not satisfy after a journey, and if washing be resorted to, take care that the heels be carefully dried. For grease is the result of mismanagement. If there be any doubt, or any suspicion in the mind of the groom or ploughman at any time as to possible consequences, he has only to rub in the Antiseptic Lotion over the heels, and his fears will be at rest.

INFLAMMATION OF THE FOOT (*Acute Founder*).—After a severely contested race ; after a gallop over heavy ground ; after a hard day's journey, no wonder though inflammation should frequently be produced in the overworked parts ; and this is often aggravated by the neglect of the groom, or carter, to dry the feet well and quickly after washing. We have already hinted, when treating of grease, that if the groom or carter should have any dread of evil consequences arising—warned by exceptionally chilly weather, or the extraordinary fatigue and battered and bruised state of the animal's feet in consequence—he has only to rub the parts well over with the Antiseptic Lotion—after thorough drying—and his mind may be at rest : he need fear no evil consequences after the day's overwork. (See Grease.) We have already said, that one of the most frequent causes of disease in horses, in this country, arises from suffering overwrought and overheated animals—and per-

haps after a long fast—to stand shivering in the cold—especially in chilly drizzling weather; and there is no more frequent practice than, after long exposure to frost and snow and sleet, to turn a tired horse into a bad stable, littered up to the knees. It is the sudden change of temperature that causes inflammatory action; and it may attack the bowels, the lungs, or any other organ; and inflammation of the feet is not uncommon *after* its subsidence elsewhere, descending, as it seems to do, to the feet by natural translation.

Symptoms: The earliest symptoms will be fever; restlessness; shifting of the fore legs; quick pulse; heaving of the flanks; inflamed and dilated nostrils; moaning and evident pain; he will lie down soon, which will distinguish the affection from inflammation of the lungs or bowels, which are marked by rolling and kicking—the horse being frequently up and down. In acute founder, the muzzle will frequently rest on the affected foot; frequently the feet will feel hot; and the horse, if the disease be not arrested, will be unable to rise; and if one foot be lifted for experiment, he will speedily drop from the intensity of the pain.

Treatment: The foot is often excessively tender, and the animal can scarcely bear the part to be meddled with; so everything must be done with gentleness. If the horse can bear even gentle rubbing, let the Lotion be applied in the usual manner; if this be unbearable, let the parts be gently sponged over (see Table of Treatment); let the whole foot and postern be swathed in the antiseptic cloth, kept copiously moistened (see Table of Treatment) to prevent evaporation, and thus allay the inflammatory action, and reduce the swelling and pressure on the tender parts beneath. But to aid in subduing inflammatory and febrile action—arresting its progress upwards, and so effectually exhausting its energy as to render inflammation improbable—a dose of Medicine should be administered immediately, followed up by demulcent and emollient drinks of gruel, arrow-root, or sago; and the horse should be kept on mash diet, with green food, if procurable. He should not be forced to stand on his feet too early—in fact, he should be allowed to make the attempt himself—and we should proceed to walking exercise with caution. No time should be lost in having recourse to judicious treatment in this disease; for if the inflammation go unchecked, or if improper or inefficient means be employed, the

hoof may be lost; the not unfrequent result of neglect and mismanagement.

PUMICED FRET.—These are often caused, in heavy horses, by overwork, especially on the streets, when the constant strain and battering will stretch and sprain the little plates so much as to render them unable to support it; and the coffin bone will be thrown backwards on the sole—the sole will become thin from the undue pressure, and the activity of the absorbents will be constantly wearing it away.

Treatment: Although there be no cure for this disease, with the exception of rest, and thereafter a trial at slow agricultural labour, the Antiseptic Medicine and the Lotion can do much as palliatives. The Medicine taken internally, in time, will reduce the inflammatory action; and if the animal can be left in the stable for a time, and the foot and fetlock be swathed in the Antiseptic Cloth (see Table of Treatment), kept constantly moist, and applied in strict accordance to instructions therein given, the inflammatory action, by such means, may be exhausted; and the rest may so far aid the preparation for future usefulness, as to encourage a new growth of horn, of sufficient strength to support the pressure of the coffin bone at slow agricultural labour.

OVERREACH.—Wounding the heel of the fore foot by the toe of the hind foot, by overreaching when in motion, causing a wound of the coronet; which, if neglected, will get filled with dust and gravel, and cause deep ulcerations, ending in quittor.

Treatment: The wound should be washed out clean with the Lotion, and carefully dressed with the Antiseptic Salve; for, if neglected, or corrosive or strong caustic applications be used, the coronary ligament becomes so injured, and its functionary portion so weakened, as to render it incapable of secreting the fluid necessary for the growth of perfect horn thereafter. If so, we shall have false quarter to deal with.

FALSE QUARTER we have just described as caused by the mismanagement of the cut or bruise caused by overreaching weakening the coronary ligament.

Treatment: Sponge over the part carefully with the Lotion (see Table of Treatment), and swathe the foot and fetlock in the Antiseptic Cloth, with a view to arrest any disposition to inflammatory action, and giving firmness and tension to the ligament and inducing ordinary healthy functional action in the part—

thereby repairing any casual weakness, and restoring any temporary want of functional energy.

The Medicine should be administered as a constitutional dose once or twice a week during the progress of the treatment.

QUITTOR, like false quarter, is the result of neglect or mismanagement of the bruise or wound caused by overreach. It is caused by the pent-up matter from the wound infiltrating and forcing its way in every direction between the fleshy and horny plates of the coffin bone and the crust and the flesh sole, and forming pipes or sinuses, generating quittor. If it should arise from a puncture of the sole of the foot, the cause will be at once evident on examination.

Treatment: If the disease should not have progressed so far, as to leave no reasonable hope of ultimate cure, let the parts be thoroughly washed and sponged over with the Lotion, and the foot and fetlock completely swathed in the Antiseptic Cloth, kept constantly moistened (see Table of Treatment), and let the medicine be administered as a constitutional dose, twice or three times a week, to arrest or subdue any latent inflammation. This course must be adhered to until the enfiltrating matter be absorbed by the conjoint actions of the Lotion, Antiseptic Cloth, and the Medicine; which will be a natural consequence on the subsidence of local inflammatory action.

PRICK, OR WOUND IN THE SOLE OR CRUST.—If this should occur from any accidental wound from nails, glass, flints, road metal, or from a wrong driven nail in shoeing, the treatment will be the same as in quittor. (See Quittor in present work).

CORNS.—As in the human being, these are caused by pressure, and corns appear in the angle between the bars and the quarters. When neglected the inflammation proceeds to supuration; quittor follows; and the matter is discharged at the coronet. It arises from natural contraction of the foot; from wearing the shoe too long; and from bad shoeing, causing unequal bearing.

Treatment: The habitual use of the Lotion if applied in time by means of the Antiseptic Cloth, swathing the foot completely, will arrest inflammatory action, soften the parts, and relieve the animal greatly. If any effusion be apprehended, the Medicine should be administered as a constitutional dose to subdue inflammatory action, and arrest and exhaust any deposition of

extravasated blood or matter. The angle between the crust and the bars ought to be pared out ; an operation which should never be neglected when necessary.

INFLAMMATION OF THE FROG—THRUSH.—This disease arises from inflammation of the lower surface of the sensible frog, and the deposition of pus in consequence. The hind feet are more frequently and more severely affected than the fore. They are at once the cause and effect of contractions. They are not always accompanied by lameness ; and by many would not be considered unsoundness. But if thrush be neglected, the discharge will become more copious and offensive ; the bone will gradually disappear ; the sensible frog become exposed ; fungous granulations will spring from it, and the canker will steal over the greater part of the foot.

Treatment : On the first symptom of the disease, let the medicine be employed immediately as a constitutional remedy, to correct the humours, and arrest and exhaust their superabundant secretion and discharge. The foot and fetlock should be bathed with the Lotion, and it should be well rubbed in all round ; and the whole should be swathed in the antiseptic cloth, kept constantly moist. (See Table of Treatment.) These three modes of applying the remedy will unite their energy,—co-operating in subduing local and constitutional inflammatory action, and arresting and exhausting the offensive discharge in the diseased parts. If this course of treatment be steadily persevered in, and if the animal be reasonably sound otherwise, the cure will progress at a steady pace, and the animal be spared for future usefulness.

CANKER.—This is in consequence of puncture, bruise, corn, quittor, or thrush, causing the ultimate separation of the bone—fungous matter replacing it. Though this disease, by proper care, is easily prevented, it is difficult of cure by the employment of the utmost skill.

Treatment : The Medicine must be taken internally, as a constitutional alterative, twice or three times a week, during the entire course of treatment. In order to exhaust the local inflammatory action—to remove by its peculiar action the fungoid growths—the Lotion must be employed to wash out, and sponge over the parts thoroughly ; and the whole foot must be swathed in the Antiseptic Cloth, kept constantly moist (see Table of Treatment), and the parts carefully dressed over with

the Antiseptic Salve ; and the Antiseptic Cloth and Salve dressing may alternate during the course of treatment.

This will be found a certain cure for a running thrush ; especially if it alternate, with the application of a clean cloth well moistened with pure water and evaporation, to alternate with the Antiseptic Cloth and Salvedressings, if their action should appear, for the moment, too energetic ; and this will serve to cool the parts, exhausting inflammatory action and the accompanying pain, by evaporation.

BROKEN KNEES.—This injury is of such frequent occurrence, and so familiar, that, without a remark, we shall proceed to the treatment.

Treatment : Let the parts be washed out immediately with the Lotion, and dressed with the Antiseptic Salve No. 1. (See Table of Treatment.) If the wounds keep open and refuse to heal, and if the operation of the Lotion and the Salve should prove too energetic, place a clean cloth, thoroughly moistened with pure water, round the part, and evaporate (see Table of Treatment ; Antiseptic Lotion ; Preliminary Operation) alternately with the dressing and the Antiseptic Cloth, to aid in exhausting the inflammatory action by evaporation.

HIDE-BOUND.—A dryness and hardness of the skin, producing a staring coat, generally evidencing want of condition. It shows an impaired action in the vessels of the skin, and bespeaks impaired functional action throughout the system, beginning with, or extending to the organs of digestion. It accompanies many diseases ; and insufficient diet and overwork will produce it at any time.

Treatment : It is a constitutional malady at all times, and necessitates a constitutional remedy. Let the medicine, then, be administered immediately as a constitutional alterative ; and let it be accompanied by generous feeding, extra grooming, a well ventilated stable, and gentle exercise ; and, in nine cases out of ten, unless symptomatic of some other latent or acute disorder in the system, the animal will soon recover, and become serviceable as formerly. (See Hide-Bound, under Class II., Cattle, in the present work.)

MANGE.—In the present work, under the head Cattle, in treating of this disease, we have said that it arises from want of cleanliness, food too nutritious, or a sudden change from poor to luxuriant pasture, and a too generous regimen. The animal

becomes covered with an eruption ; the vesicle breaks ; the cuticle and hair fall off. This is attended with itching and tenderness, and a thickening of the skin. It generally first appears on the neck, at the root of the mane, in the horse, and spreads upwards to the head, and downwards to the withers and back. It will propagate by the use of an infected brush or currycomb.

Treatment: The treatment is simple and obvious. It originates in want of cleanliness and mismanagement. The animal should be instantly separated from the stock. The Antiseptic Lotion must be applied copiously over the skin, with friction (see Table of Treatment) ; and this must be followed by a liberal dressing with the Antiseptic Salve. (See Table of Treatment.) The Medicine should accompany the treatment throughout, as a constitutional remedy. Many animals are lost daily by the reckless application of deleterious, corrosive, and poisonous compounds for the cure of this disease. (See Mange, under Class II., Cattle, in the present work.)

WARTS.—Tumours growing from the cuticle, afterwards extending, and connecting with the true skin by means of the vessels which nourish them. They may be found on various parts—the prepuce, the eyelids, the ears, and elsewhere. They are usually removed by ligature ; if so, the part should be copiously washed and cleansed with the Lotion, and dressed with the Salve No. 3. (See Table of Treatment.) The conjoint action of the Medicine and Lotion will of itself, very frequently, cause the unsightly growth to wither and drop off without excision.

But the Medicine should be administered as a constitutional alterative, to correct the circulating fluids ; to rectify the balance of secretion and excretion ; to induce healthy functional action in the system :—for their abnormal growth indicates plainly depraved and misdirected functional action. (See Warts or Angle Berries, under head Cattle, in present work.)

MEGRIMS arise from *plethora*, tightness and smallness of the collar, impeding the return of the blood from the head ; an exceptionally high temperature during exercise, and the small vessels permeating the brain becoming unnaturally distended, and the bulk of the brain thereby increased, when it will press upon the organ of the nerves, and loss of power and consciousness.

Treatment: The Lotion should be applied externally, with friction, to the nape of the neck and downwards (see Table of Treatment), with the view of directing the blood current downwards, and relieving the pressure on the brain. Let an attempt be made to get a dose of the Antiseptic introduced by Reid's Patent Pump, if at all practicable; and let an Injection be thrown up to clear out the intestinal tube and connexions without loss of time. The action of the remedy in the stomach and intestinal tube, besides clearing out the passages, will relieve the pressure on the circulatory system; and as the first step towards relief, the stimulating action of the Medicine on the stomach in its passage, will produce a determination of the blood downwards to that organ and the Injection to the intestinal region,—thus removing the pressure on the brain by gradually restoring the equilibrium.

This is a very dangerous disorder; and after a recurrence, it would be by no means safe to trust a horse in saddle or harness.

The ordinary remedy is instant bleeding; but if the cerebral pressure can be removed by diverting the blood current downwards, in a measure—alleviated by the stimulus of the medicine—the pressure of the engorged lobes on the bony covering would cease, and relief would be obtained without bleeding. The danger of having recourse to blood-letting is this,—that, in most cases, it becomes frequent, if not habitual—exhausting the constitutional energy of the animal, and impairing his usefulness.

We well know there may be a difficulty—nay, often an impossibility—in carrying out the mode of treatment we have recommended above; but on the observance of the slightest premonitory symptom (though in megrims—in the case of tight collar—there can be none) the treatment we have recommended should be at once adopted. In apoplexy (the disorder which follows), we have frequently premonitory symptoms; and we have advised the use of the Medicine and Injection on the first suspicion of the approach of such an alarming malady.

APOPLEXY.—Here the horse drops at once and dies. There is no inflammation of the brain—but there will be premonitions;—a hanging of the head; the animal staggering as he stands; if moved, appears as if he would fall; sight and hearing evidently affected; there is no distension of the stomach; after an hour, or it may be several, he falls; grinding his teeth, eyes open, pro-

truded, and fixed, and dilated pupil; nervous twitchings; cold muzzle; unable to swallow; the drink would now be returned by the nostrils or the mouth, and the dung voided involuntarily; strong convulsions ensue, and death follows.

Treatment: The treatment we have recommended under Megrims should be adopted on perceiving the *first* suspicious symptom, and should not be delayed on any pretence. This will save suffering and risk—it may be the life of a valuable animal. The Lotion should be applied externally, with friction, to the nape of the neck and downwards (see Table of Treatment), to aid in directing the blood current downwards, and in relieving the pressure of the brain.

STOMACH STAGGERS.—This disease arises from over feeding and mismanagement.

Symptoms: The horse looks dull, sleepy, and staggering; looks vacantly around him; seizes a lock of hay, and dozes with the hay in his mouth; sleepiness passes off, succeeded by delirium; when he falls, rises, beats about, and finally dies in convulsions.

Treatment: On the appearance of the first symptom, use not a moment in adopting the treatment recommended under Megrims and Apoplexy, in the present work.

MAD STAGGERS.—This is frequently only an advanced stage of stomach staggers.

Symptoms: Here we have inflammation of the brain and fever; the horse begins to heave at the flanks, with nostrils expanded; eyes unclosed, and with a wild and vacant stare; delirium succeeds; he becomes wild and unmanageable, and quite unconscious; becomes furious and dangerous; and exhausts himself in desperate struggles.

Treatment, On the appearance of the first suspicious symptom, lose no time in adopting the treatment recommended under Megrims, Apoplexy, and Stomach Staggers, in the present work. In the first place, the Lotion may be used externally over the nape of the neck and downwards (see Table of Treatment), to aid in diverting the current downwards, and relieve the pressure on the brain.

TETANUS, OR LOCKED-JAW.—This is a constant spasm of the voluntary muscles, and particularly of the neck, the spine, and the head. It is though a dreadful and fatal disease, steady in its attack.

Symptoms: The horse appears unwell for a day or two; feeds badly; chews and drops his food; gulps down his water; motion of the jaws impeded and irregular, and the saliva dribbles down from his mouth. At length it is discerned that the jaws are closed and immoveable; and thus the time for preventive treatment—for arresting the disease—is lost.

Treatment: On the appearance of the very first suspicious symptom, lose not a moment in anticipating and arresting the progress of such a fatal and dangerous disorder, by adopting the course of treatment recommended under Megrims, Apoplexy, Stomach Staggers, and Mad Staggers, in the present work. Such prompt treatment will anticipate and prevent the consequent and inevitable sequel. But though the jaws should be set before the owner has had recourse to the Antiseptic Treatment, a last attempt may be made at relieving the suffering animal. The Lotion must be applied, with severe and persistent friction, to the nape of the neck, around the jaws, and downwards along the line of the muscles and their accompanying nerves—with a view to relax the cramp and tension by the untiring application of a powerful stimulus. This is all that Antiseptic Treatment can do to remedy the fatal consequences of neglect and mismanagement.

EPILEPSY.—This is the temporary suspension of the nervous influence. The horse is not often afflicted with this disorder. The animal stops of a sudden, trembles, looks vacantly around him, and falls.

Treatment: Endeavour to ascertain the cause of the malady; and, this ascertained—address yourself to the cure of the primary, or idiopathic ailment, of which epilepsy may be merely symptomatic; and the treatment to be pursued for the cure of the idiopathic ailment will be found under the proper head. The use of the Lotion, with friction (see Table of Treatment), should be the first step taken, and applied to the nape of the neck and downwards along the muscles and accompanying nerves.

INFLAMMATION OF THE EYE.—This may be caused by external violence, by cold and its consequences, by a foreign substance entering within the lid, and by general constitutional derangement, and very frequently by the noxious gases emanating from the decayed and decaying animal and vegetable matter in the litter in an ill-kept and ill-ventilated stable. Let the Lotion,

diluted (see Table of Treatment), be used as a refrigerant and abstergent ; sponge over the eye thoroughly, keeping the lids closed, and lay the Antiseptic Cloth over the organ, to exhaust the inflammatory action by attraction of the caloric to the surface ; and evaporation.

If the affection should prove obstinate, the Medicine should be administered as a constitutional alterative and refrigerant. (See Table of Treatment).

OPHTHALMIA, OR MOON BLINDNESS.—If the inflammation is allowed to progress for a few days without treatment it may end in ophthalmia, and this is a serious disease to combat ; but if the inflammatory action be taken in time, and treated as under Inflammation of the Eye in the present work, the disease will very speedily become exhausted.

Symptoms : If the disease be left to run its course, or under inefficient treatment, the inflammation will continue for weeks, partially disappearing and reappearing ; the redness of the membrane disappears, the cornea clears up, and a slight thickening of the lids and intolerance of light alone remain. But the disease speedily returns. After a time a deep-seated cloudiness begins to appear, succeeded by opacity of the lens and its capsule ; and perfect blindness succeeds, either of one eye or both.

Treatment : The preventive treatment we have recommended under Inflammation of the Eye, *pursued with the greater persistence and assiduity*, will prove an efficient curative treatment in the advanced stage of this malady ; and with this remark we cannot do better than refer back to the course detailed under Inflammation of the Eye in the present work.

GUTTA SERENA.—Here we have a dilatation of the pupil ; it is immoveable, bright, and glossy. There is palsy of the optic nerve, or its expansion, the *retina*. This is frequently a consequence of staggers. The function of the nerve has been destroyed by pressure on the base of the brain.

Treatment : The seat of the disease is out of our reach, but we may attempt a palliative, if we should not possess a remedy. The Lotion must be used to sponge over the eye, and it must be rubbed into the neighbouring parts ; and the Antiseptic Cloth, kept constantly moist, must be applied externally to exhaust the energy of any remanent latent agent which may continue to exert any unnatural pressure ; and (should the pressure have been previously exhausted) to induce and restore

normal functional action in the parts. But this object must be mainly attained by the constitutional action of the Medicine as an alterative, refrigerant, absorbent, and tonic—correcting and repressing, by a general influence, any irregular action in the secretories and absorbents ; and inducing, by a graduated action, the restoration of normal functional action throughout the system generally.

GLANDERS.—The first unquestionable symptom of glanders is a discharge from one or both nostrils. It generally begins in the left, which is a strange peculiarity. It is not discharged occasionally, and in large quantity, like running mucus in catarrh. It is a loathsome and incurable disease unless arrested in its incipient stages. Glanders may either be bred in the horse or communicated by contagion. It is primarily an inflammatory affection of the membrane of the nose, succeeded by the production of tubercles and minute tumours in the cells of the organ, which may long exist undetected, till they suppurate, break, and ulcerate, and that fatal noxious matter glides down the nostril, which, if the disease be not arrested, will empoison the entire constitution. It may be caused or developed by improper stable management and the constant inspiration of empoisoned air, producing irritation and generating disease in the respiratory organs, and spreading throughout the system. Cleanliness, moderate temperature, and ventilation cannot be too urgently insisted on ; for the influence of these fruitful and, where present, constantly operating causes of disorder cannot fail to weaken vital energy and prostrate even the most robust and perfect inherent vigour. This disease is highly contagious, and the lover of horseflesh cannot be too well aware of that danger.

Treatment: Whenever the first tell-tale symptom—the defluxion from the nose—appears, we should commence the use of the Medicine as a constitutional alterative, antiseptic, and absorbent. The animal should be removed to a separate stable till the true nature of his disease be ascertained. If he should unfortunately prove glandered, the removal would prove but necessary ; if it should prove but a false alarm, and the malady should determine in simple catarrh, then no harm has been done.

Chronic glanders is a constitutional disease, and we must proceed by deliberate and persistent means to medicate the

circulatory, fluids and act on them by an irresistible chemical alterative.

The Antiseptic Medicine possesses the inherent power, by its associated medicinal virtues, to alter and regulate the crasis of the blood itself; from which is separated every secretion which nourishes and builds up the human frame; so that its employment is necessary where we have to combat constitutional disorder of so serious a type; and it therefore becomes especially necessary here to explain its action. It should be administered from the outset; and it matters not whether it prove the dreaded malady or simple catarrh, the use of the Medicine in either case will be the groundwork of the cure. The Medicine, then, should be administered on the appearance of the first suspicious symptom. We do not think that even chronic glanders is incurable, if the Antiseptic medicinal course of treatment be persisted in with steadiness, and a fair trial be given to it; assisted by careful feeding, cleanliness, and thorough ventilation. Owners of horses cannot be too careful in avoiding the possibility of contagion from provender, harness, clothing, or furnishing of any sort from a glandered stable, or its neighbourhood.

FARCY.—Glanders and farcy often run into each other, and mingle symptoms. It was thought to be primarily a disease of the absorbents of the skin. The truth is, that latent inflammatory action pursues the natural course of the fluid which permeates the innumerable little vessels which deposit the material for sustaining the human frame. In such of these as are furnished with valves, the inflammatory agent—the superabundant caloric—is arrested at each of these valvular points; the little valves inflame and swell; and the first tangible indication of the disease, a crop of internal invisible farcy buds are speedily generated; and they first show externally about the face, neck, inside the thigh; and, in the latter case, there is some general enlargement of the limb, and lameness. The increase of these buds marks the progress of the disease, and that progress is resisted by the resistance of these valves.

Treatment: This is manifestly a constitutional disorder of the inflammatory type; and the mode of cure is to arrest the inflammatory action by exhausting it at the fountain head. The way to do this is to administer the Antiseptic Medicine at once as a constitutional alterative, refrigerant, and antiseptic;

thus medicating the life current by its alterative, refrigerant, and antiseptic power; and exhausting the inflammatory action, before it extends to the minute vessels and their valvular accompaniments. It is very clear, that if the Antiseptic Medicine can bring about this change—a cure of farcy, by persisting in its constitutional use, is quite possible. If the malign influence which generates the irritation—which inflames and swells the valvular accompaniments of the minute vessels, be arrested and disarmed of its virulence, the diseased action must gradually cease, with the weakening or suppression of the virulent agency.

It would be vain to attempt to combat a constitutional malady with any less powerful agent than an irresistible alterative; in the case of an inflammatory affection, an irresistible refrigerant; and in the case of carcinomatous and septic action, an irresistible antiseptic.

The Antiseptic Medicine possesses all these qualities and inherent virtues; and if it should not succeed, in judicious hands, in effecting an ultimate cure, the case may well be deemed hopeless.

As in treating of glanders, we repeat, that owners cannot be too careful in enforcing regulated feeding, cleanliness, and thorough ventilation.

LAMPAS arises from inflammation of the gums when the horse is shedding his teeth, propagated to the bars, which rise to a level with, and even extend beyond, the teeth; and the disease emanates from a febrile tendency in the constitution.

Treatment: Scarification of the bars is generally resorted to; but they must be washed out thoroughly with the Antiseptic Lotion, whether with or without scarification; and the Medicine must be taken inwardly from the outset, as an alterative and refrigerant, to arrest and subdue inflammatory action throughout the system. This will be quite sufficient, without torturing poor animals with tormenting remedies.

STRANGLES.—This is a disease from which few horses escape; and, if properly treated, there is little danger. Hitherto there has been no known prevention of the disease; but the constitutional use of the Antiseptic Medicine—insuring, with proper management, buoyant health, vigour, and condition—is the best preventive; and if an attack should threaten, the circulating fluids, thoroughly medicated by the remedy, will be in the best

possible condition to resist disease ; and, after an easy struggle, to give it the go-bye.

Symptoms : Young horses are most subject to strangles. It may be preceded by catarrh, cough, discharge from the nostril of a yellowish colour, mixed with matter, but odourless ; ropy discharge from the mouth, tumour under the throat, in the centre of the channel of the under jaw ; want of appetite, and thirst, with difficulty in swallowing. Convulsive, suffocating cough follows ; the tumour bursts ; the cough subsides ; and the horse speedily recovers.

Treatment : The Medicine should be administered immediately, to correct the humours, and to arrest the deposition of matter below the jaws, and the discharge from the mouth and nostrils ; to exhaust unhealthy functional action throughout the system—thus removing the catarrhal symptom, and, along with it, the cough ; and freeing the system from any latent inflammation.

If any enlargement under the jaw should threaten, in spite of the steps taken to prevent deposition of unhealthy matter, let the Lotion, with friction (see Table of Treatment), be used externally to aid the Medicine, by its local energy, in exhausting the latent inflammatory and unhealthy functional action, resulting in depravity of the humours, tumification, and abscess—attaining these ends by evaporation of the parts and active absorption.

CANKER IN THE MOUTH is often produced by the pressure of a sharp, or a rusty bit ; inflammation ensues, and it proceeds to ulceration, if neglected.

Treatment : Wash out the parts thoroughly and regularly with the Antiseptic Lotion, till the wound heals up. If they refuse to heal kindly, administer a constitutional dose or two of the Antiseptic Medicine, to aid the action of the Lotion. (See Table of Treatment.)

ROARING may be detected by striking the horse suddenly, or by threatening him with a stick, when he will utter a grunt or groan. It is believed to be caused by inflammation in the part ; when a fluid, rapidly changing into a tough viscid substance is thrown out, and adheres to the sides of the larynx, and the upper part of the windpipe, obstructing the passage ; and when the horse is blown, and his breathing hurried, the air whistles through these obstructions. This is unsoundness. Roaring may proceed from strangles. Roaring is more common in carriage than in saddle horses, because of the painful pressure

on certain parts, caused by reining in the harness horse, in the endeavour to teach him to bear himself well, with an arched neck and elevated head, and look graceful. The mechanical injury to the parts, by pushing this unnatural restraint too far, is beyond calculation.

Treatment: A large sum has been long offered for the cure of roaring. We have shown that it is an inflammatory affection, producing an obstruction as a natural consequence, and in a natural and sufficiently intelligible way. In the carriage horse it is produced by unnatural mechanical pressure on the parts, and the impatience of the animal under restraint. The mischief is usually done to young horses. The muscles will become contracted, powerless, and in time palsied; and the air will rush through the diminished aperture, creating the sound termed roaring.

Treatment: If the affection arise from a distorted larynx, there will be no remedy but rest, and the bare chance of a natural renovation of the part during the removal of the unnatural restraint, and discontinuance of the violence which caused the injury. The natural functional effort to accomplish renovation, and restore regulated normal functional action in the part, will be greatly aided by the constant use of the Lotion, with friction, over the diseased or injured parts; and the habitual use of the Medicine as a constitutional alterative and refrigerant, will aid the recuperative power of nature in accomplishing renovation of the part, and restoration of normal functional action therein. If the affection should arise from local inflammatory action, the external application of the Lotion, with friction (see Table of Treatment), over the diseased parts, aided by the alterative and refrigerant action of the Medicine, taken internally, will reduce inflammatory action; ensure the subsidence of any consequent thickening or swelling of the parts, and conjointly with the absorbent action of the Antiseptic Remedy, will, by a steady and graduated action; restore the parts to their normal form and symmetry—thereby aid in restoring normal functional action; absorb the exuded fluids; medicate them, and alter their tough and viscid character; so that by the renovation of the parts—by the absorption of the obstructing fluids—by the use of the other process, or by both conjointly—unless the distortion of the larynx has become by neglect obstinate and incurable—the animal may, in time, get rid of this

affection; and his general health and condition be improved mightily as a consequence.

A roarer will, almost to a certainty, produce a roarer; so that the treatment we have been recommending, if it should not secure the £10,000 prize, so temptingly offered to an expectant public, will at least show what relief the Antiseptic Practice can bring in the cure of this malady. It will be of the highest importance amongst high-bred animals and racing stock; more especially if it should succeed in effecting a cure in the case of these sultan-like prodigies, which have been spared to reap the fruits of their triumphs, and to repose on their laurels; and have been selected to preside over select seraglios—and are destined, very probably, to be sires and progenitors of countless winners on every course in Europe.

FISTULOUS WITHERS.—This disease is caused by the pressure of the saddle on the withers. If taken at once and treated with the Antiseptic Lotion, with friction over the parts (see Table of Treatment), to be followed by evaporation (see Table of Treatment) and a short rest—a speedy cure will be effected. But if the swelling should remain stationary, and if it should become large and tender, the Antiseptic Cloth should be applied over the part (see Table of Treatment), alternating with evaporation over the part. The Medicine must be taken internally to aid the topical applications in exhausting inflammatory action—the cause of the enlargement and tenderness; and thus, by correcting the humours, and by medicating the circulating fluids of the system, from which are secreted the elements that build up the frame and nourish the body in every part—inducing healthy local functional action—you will thus be insuring the subsidence of the swelling, by arresting the inflammatory action which causes it. By steady persistence in this course of treatment, a speedy cure may be confidently anticipated.

WARBLES, STIFASTS, AND SADDLE GALLS.—There are no more efficient remedies than the Antiseptic Lotion and Salves. (See Table of Treatment.)

DROPSY OF THE SKIN OF THE CHEST.—This is an effusion of fluid under the skin, between the fore legs, and on the chest. It accompanies many diseases, and evidences debility.

Of course, the cure of the symptomatic will generally keep pace with, or be consequent on, the cure of the idiopathic affection. At all events they necessitate the employment of a con-

stitutional remedy—a constitutional alterative and absorbent. The Medicine, then, must be used systematically with this view (see Table of Treatment); and the topical use of the Lotion, with evaporation (see Table of Treatment), will aid the alterative and absorbent action of the Medicine in exhausting the effusion and effecting a cure; besides improving the general habit and promoting and restoring condition—with due attention to feeding, cleanliness, ventilation, and exercise—provided the constitutional debility may not have proceeded too far, and the accompanying idiopathic affection may not forbid a cure.

THE EFFECTS OF STABLE MISMANAGEMENT are serious beyond all calculation. The imperfectly-oxygenated air, and the effluvia and noxious gases emanating from the decomposed and decomposing animal and vegetable matter of litter, and fæces moistened with urine, combined with damp exhalations and want of ventilation, are the primary and exciting causes of fevers and inflammatory affections. The respiratory organs become the latent seat of disease; functional action becomes impaired and weakened; and the vital action fails and sinks under pervading debility.

The animal appears to be unwell, without any specific disease; his mouth feels hot; his eyes look dull and yellow; and his coat loses some of its usual gloss, and stares between the hip bones, and on the poll of the neck. His appetite frequently remains pretty good, but he is more than usually anxious for water; his heels become scurfy, and sometimes crack; he stales often, but little at a time; his urine becomes high coloured, and his excrements occasionally hard, and covered with a slimy fluid; he is dull when at exercise, and frequently coughs without any appearance of having taken cold; he gradually loses flesh, and looks dry in the skin; his legs and ears are often cold, and the latter frequently moist after exercise; and they sometimes become denuded of their natural covering; his crest falls; the whole tone of the system appears relapsed; and, without the groom knowing exactly why, he is not the horse he was a week or a fortnight before.

Now this is a faithful detail of the symptoms so commonly observed in the tenants of, what pass for, well-managed stables; but one or other, and sometimes all, these insidious causes are operating; and it is impossible they can continue to do so without being followed by their certain consequents.

Inherent vigour will mysteriously fail; condition will be lost;

and the symptoms above detailed will succeed each other with unfailing certainty—and all arising from want of attention to the minute, but all-important, details of faultless stable management.

Blindness, pneumonia, and every variety of pulmonary affection ; the diseases of the air passages, strangles, roaring, &c. ; glanders, farcy, and many constitutional disorders may have emanated from these fruitful and, too often, unsuspected sources of disease and mortality. The temperature is sometimes too high in first-class establishments, without corresponding ventilation to get quit, at once, of excess of warmth and noxious exhalations ; and when the animals are turned out to a chilly or frosty atmosphere, the chilly and frosty air, impinging on the delicate lining membrane of the air passages and the cellular texture of the lungs, excites irritation on these sensitive surfaces—generating inflammatory action, pustule, ulceration, and incurable pulmonary malady.

These are the unsuspected, insidious, but *veritable* primary causes of frequent disease and death in some of those stables in which mismanagement would never be suspected ; and where common civility would preclude the chance of their being hinted at.

CLASS II.

CATTLE.

THE diseases of Cattle are principally connected with the vascular system; for the object of the modern breeder and feeder is to keep the ox, as nearly as possible, in a state of plethora, from the moment he is calved till disposed of to the butcher. The milch cow must be good for the pail as long as she is wanted, and then quickly got into marketable condition; and she must fatten well, after she has ceased to yield a large supply of milk. She must have a strongly developed vascular system, favourable to secretion. Inflammatory action, then, must frequently supervene, either idiopathic or symptomatic; and though inflammation of the arteries be rare in the ox, a similar affection of the capillaries constitutes the very essence of every other disease. Where the increased action of these vessels is confined to a single organ it is termed local; but when it extends to the whole system, the inflammatory action assumes the name of fever.

The blood is carried on through the arteries by the force of the heart's action, and continues to circulate through them until they have diminished so much in size, as to be termed *capillaries* or *hair-like tubes*. This includes by far the most important part of the circulation. There every secretion is performed, and the nutrition of every part is effected. The arteries are rarely subject to inflammation in the ox; but the diseases of the capillaries, including inflammation, are very important.

FEVER (*Pure or Idiopathic*) is much more frequent in cattle than is generally imagined; though not so common as *Sympathetic* or *Symptomatic* fever. In fever, an animal of a sudden becomes dull; ceases to ruminate; an unnatural heat is felt at the root of the horn; the flanks begin to heave; the pulse is quickened and hard.

Treatment: Remove the animal immediately into a shed, and administer a dose of the Antiseptic Medicine. (See Table of

Treatment.) Place a mash before him, and the beast will generally recover. If towards evening there should be any threatening of relapse, repeat the dose; and the nascent fever will be most usually strangled in the birth. When febrile symptoms supervene, then—it matters not from what cause—lose not a moment in administering the remedy; for everything will depend on promptitude when inflammatory action may threaten. If there should be intermission,—a persistence in the same treatment will weary out the disease; if due attention be paid to washing and spare diet, whilst the patient continues under treatment.

If idiopathic fever should, from culpable neglect, be permitted to assume a local determination, then the hair must be shaved off the part, and the Lotion applied, with persistent friction, over the seat of the disorder; and, if not, the Lotion, with friction, and the hair brush or flesh glove must be used in like manner (see Table of Treatment); and if the Salve can be conveniently applied, with friction, no time should be lost in resorting to this co-operating agent; which will supplement the inherent power of the Remedy in removing the local affection.

A piece of coarse flannel or hair-cloth—the hair glove—should cover the hand when applying friction to the diseased parts.

No time should be lost in getting rid of the local affection, to prevent the system becoming generally affected; and if the fever be pure and idiopathic, the fever must be immediately subdued, before it has time to take a local determination.

Young stock are especially subject to inflammatory fever,—though cattle of all ages frequently fall victims to the malady. It generally arises from too high feeding in the pasture field, yard, or stall; and occasionally from atmospheric influences. It appears generally in the spring and fall, with the early or late flush of grass; and, on poor pastures, is comparatively unknown. In such cases it arises from the excess of healthy stimulus, and the eagerness of the farmer to get his animals into condition. Change of temperature may influence indirectly; but sudden change in feeding has really done the mischief.

The object should be to act instantly and promptly, so as to subdue the disease *without reducing the condition of the animal unnecessarily*. By such watchfulness, and promptitude of action, all necessity for having recourse to violent treatment—to exhausting depletions, and barbarous remedies,—is humanely superseded; and if nature, aided by gentle and rational supple-

mentary treatment, should effect a cure, the animal *will retain condition, in great part, and the farmer the profit*—instead of being subject to a sacrifice of time and money in restoring the condition which violent and barbarous treatment had wantonly wasted. It would, in nine cases out of ten, be better for the farmer to trust to the kind offices of nature alone, spare diet, and mashing, than run the risk of losing his beast,—certainly wastefully losing the condition of the animal; and paying the surgeon's bill into the bargain.

Thousands of animals fall victims to inflammatory fever every year. It is known, from its virulence, by many local names: quarter evil, blood striking, black quarter, joint murrain, &c., &c., according to the occasional symptoms prevailing in some of its stages.

The animal has generally a few premonitory symptoms. He stands with his neck extended, his head being preserved in a horizontal position; his eyes protruding and red; muzzle dry; nostrils expanded; breath hot, root of horn similar; mouth partly open; tongue enlarged, or apparently so; breathing laborious; flanks violently heaving; and moaning in a peculiar manner. If the Medicine, under such circumstances, be resorted to promptly, the disease will be at once arrested (see Table of Treatment); and if it should not promise to yield immediately to the action of the Medicine, let a clyster be prepared and applied, conform to directions in Table of Treatment, and used without loss of time. The first object is to clear out instantly the *primæ viæ*—the stomach and intestinal tube; by such means relieving the pressure on the blood-vessels, which is the most certain and direct means of reducing inflammatory action, without resorting to the extreme method of doing a violence to nature by abstracting a large portion of the blood current—the tide of life.

If tenderness of the loins should be accompanied with swellings about the shoulders, back, and loins, and a peculiar crackling emphysematous noise in the cellular membrane, we may conclude that the process of decomposition has already commenced; and if hard scurfy patches should have appeared on the skin, we have *black quarter*. Ulceration will follow on belly, quarters, teats, and mouth; the tongue becomes blistered; urine and fæces bloody. The disease has assumed a putrid type; and we find venous congestion everywhere; and death supervenes in two or three days.

When the disease is of a purely inflammatory type, followed by effusion, the nervous energy becomes impeded ; the excretory ducts become paralyzed ; the blood current experiences a deficiency of vitality, and resolution and fermentive decomposition ensue—the conditions necessary to vital action being suspended.

Sometimes inflammatory fever results from overwork, or over-driving, in hot weather ; and, as we have already remarked, when the process of fattening has been injudiciously hastened. In this case, let the Medicine and Injection be employed immediately, and little fear need be entertained as to the result. The only danger will arise from culpable delay. No herd of cattle should be allowed to be driven to market to any distance, or even sent by rail, without placing the stomach and injection pump, with a supply of the Antiseptic Medicine, in the hands of the drivers or tenders.

In the general case, if the symptoms should not very appreciably moderate in six hours, the dose and clyster must be repeated every six hours until the desired effect be produced. In administering the Medicine, great care should be taken to pour it down the throat *as gently as possible*, for the following reasons :—

There are two openings into the rumen, or first of the four stomachs of the ox—one at the base of the œsophagus, and the other below this, larger and always open, communicating with the second stomach ; so that the surgeon practitioner is often not a little annoyed to find that his medicine fails to operate as he expected. A portion of the liquid swallowed usually enters the rumen of the ox—dependent in part on the will of the animal, but, in a much greater measure, on the manner in which the fluid is administered. When physic is administered in a liquid form in diseases of a distinct inflammatory type, the practitioner, who is ignorant of the anatomy and functions of the stomachs, wonders at the obstinate constipation which seems to bid defiance to his medicines,—never dreaming that the greater part may have entered the rumen or first stomach, and may remain quiescent in this voluminous receptacle for a long period, until, by frequent repetition, it is excited to action, and ejects a portion of the liquid, along with some of its solid contents, either directly into the œsophagean canal—which is rare—or through the medium of the reticulum, or second stomach, and, by an inverted and forcible contraction, through the manyplus or third

stomach, into the abomasum or fourth stomach, and thence into the intestinal canal, with which it communicates.

The proper method of administering the Medicine is to let it flow gently down the œsophagean canal, that it may pass the rumen in as great quantity as possible, and find its way, as quickly as it may be, by the intermediate passages, through the pyloric orifice of the abomasum or fourth stomach, into the duodenum or first intestine. Nevertheless, in spite of every precaution, it will sometimes happen, that dose after dose may be administered; the animal die of obstinate constipation; and the whole volume of the physis be found in the rumen.

But still we are not without our remedy.

In every case of obstinate constipation, when the Medicine fails to operate within a reasonable time, we should straightway have recourse to the Injection (see Table of Treatment); and let it be administered without loss of time, and repeated, if necessary, in order that the stomachs may be stimulated into vigorous and sympathetic action by the direct action of the Injection on the intestines themselves.

This treatment must be followed up by antiphlogistic dietary and mashing, beginning with a pail of well-boiled gruel—the latter, if necessary, to be forced upon him by means of the stomach-pump—as a grateful lubricant. Let the Medicine be continued at intervals, as discretion may dictate, until a perfect cure be accomplished.

If the practitioner should not have been called in till after ulcers have broken out, and the sloughing process has commenced, the Medicine and Injection should be at once administered, though decomposition has actually begun, to give a last chance for life to a valuable animal. The ulcers should be carefully washed besides with the Lotion, and dressed with the Antiseptic Salves (see Table of Treatment); and wherever enlargements or heat lumps are to be found the Lotion must be applied externally over the part with persistent friction.

Prevention of this malady by timely anticipation, warned by premonitory symptoms, is the true cure; for, unless in the case of a valuable breeding animal, a successful cure will result in little profit when the expense of time and money is taken into account.

Besides clearing out the primæ viæ, the stomach, and intestines and thus removing all abnormal pressure on the circulatory

system, the refrigerating influence, inherent in the Medicine itself, will be speedily enabled to extend itself throughout the system; all violent depletory practice will be superseded; and the animal relieved by natural and rational means, without having recourse, in the first instance, to this preliminary step. The employment of violent bleeding would be a desperate venture, taken at haphazard; for, by the sudden withdrawal of a great volume of blood,—the system, at the moment, being prostrated by constipation and its consequents—the recuperative power, necessary to aid nature in rallying and recovering the equilibrium, might have disappeared for ever.

I shall ever bear in mind, that prompt and inexpensive remedies are alone admissible in cattle practice; unless, indeed, in the case of valuable animals, of prize blood, and high pedigree, when neither time nor money will be grudged by the owner.

The propriety of administering cattle medicine in a liquid form is at once evident, when we consider that a ball, in consequence of its weight, breaks through the floor of the œsophagean canal; enters the rumen or first stomach, and is lost. A liquid dose, administered slowly and carefully, will trickle down the œsophagus without exciting muscular action; and, increasing its momentum in its progress, will glide over the intermediate space into the fourth stomach; and thus reach the intestines and operate quickly, certainly, and powerfully.

A spare and antiphlogistic dietary must be observed till the period of danger has been tided over.

TYPHUS FEVER sometimes follows intense inflammatory action, when it may be regarded as the second stage of inflammatory fever; but it occasionally reveals itself by a slight heat at the root of the horn, and in the ears and mouth, without the presence of any alarming symptoms. The animal ceases to feed, or graze; its strength fails, and there is a general wasting; diarrhœa succeeds, and bids defiance to the skill of the medical adviser. The discharge is fetid, containing blood and mucous; low fever becomes chronic; tumours form around the joints, on the back, and on the udder, which ulcerate and spread, and become extremely fetid. The breath becomes offensive, as in the secondary stage of inflammatory fever. It generally occurs in the fall and spring; and in low and marshy pastures; and insalubrious locality, and ill-ventilated houses, are predisposing causes, if not the original cause.

Treatment : A slow consuming fire burns within the animal, and we must do our best to extinguish it. The vital power is oppressed, and we must remove the oppression, to let nature rally. The Antiseptic alternative and refrigerant is distinctly called for ; and its timely exhibition will stay the fever, sweeten the blood, the principles of which have been destroyed ; regenerate the frame ; the ulcers will dry up for want of a supply of diseased virus from within ; and the chemical action of the Medicine will thoroughly correct the depraved state of the fluids ; and the solids will participate in the happy change. Let a dose of the Medicine (see Table of Treatment) be administered at once ; and again every third or fourth hour, according to the urgency of the symptoms ; and thereafter every morning and evening, until the desired effect is produced. If the symptoms become more alarming, let the Injection be at once resorted to ; and it is of the highest importance to clear out the primæ viæ to remove morbid secretions, and to enable the medicines the more quickly and thoroughly to master febrile and carcinomatous action in its progress throughout the system.

As in the second, or ulcerous, stage of inflammatory fever, the sores must be constantly and carefully washed out with the Antiseptic Lotion ; and wherever unnatural enlargements and swellings present themselves on the surface of the body, the the Lotion must be applied directly over the spot, with persistent friction. If necessary, in obstinate cases, the hair must be shaved off, in order to afford the solution the better opportunity of infiltrating. If not, the hair glove or flesh brush must be employed, with persistent friction ; and the action will be found as efficient as any blister.

A studiously spare and antiphlogistic dietary must be persevered in, till inflammatory action has sensibly moderated.

This treatment must be persisted in ; and in the case of animals of pure blood and high breeding, time, trouble, and expense will be amply recompensed.

MURRAIN frequently appears as an epidemic : the first symptoms catarrh, with intensity of febrile action and consequent exhaustion. It gradually assumes a typhoid character and extends throughout the frame ; and generally infests woody, marshy, or ill-drained districts, and frequently results from exposure and starvation. From these centres it spreads ; though its course is frequently very indeterminate. It assumes

a great variety of forms, and the symptoms are various. It is denominated murrain, distemper, epidemic, rinderpest, glossanthrax, blairy, &c., &c., and is known under many peculiar names in different localities, and they are not unfrequently descriptive of the prevailing symptoms. Cough is frequently a premonitory symptom; after a few days a heaving of the flanks, with a small, hard, frequent, irregular pulse; mouth hot, root of horn cold; fæces hard and dark coloured, and giving out a fetid odour; tenderness along the spine and loins; the cough soon becomes convulsive, with a discharge of brown and bloody matter from the nostrils and mouth; the eyes swollen and weeping; grinding of the teeth; spasmodic contraction about the nostrils; if the animal lies down, he immediately rises up again; respiration now becomes quickened and more feeble; the patient moans, lows, grinds his teeth, blood begins to mingle with the fæces; breath and perspiration becomes exceedingly offensive; tumours and boils appear, and if they proceed quickly to suppuration, the animal will have the better chance of ultimate recovery; if they remain stationary, or recede, the animal will die.

Treatment: The moment the catarrh and cough appear, the Medicine (see Table of Treatment) should be immediately administered—at first every three, or six hours, according to the urgency of the symptoms; for if the season and locality excite suspicion of nascent murrain, not a moment must be lost; for so much—perhaps the prevention of incipient epidemic, which, if neglected, may affect the whole stock—may be anticipated and arrested by watchfulness and promptitude. If the symptoms should not disappear under this mild treatment, and if the disease should threaten to progress, lose no time in administering an injection at the same time with the Medicine, for the reasons given under Inflammatory and Typhus Fever. Where murrain is apprehended, well knowing the malignity of the distemper, and its fearful consequences, the farmer must not desist for a moment until he has fairly killed the last symptom out. If he and others should not, he and they will very probably live to repent it. They may live to see not only their own stocks decimated, but the cattle in their neighbourhood swept away in thousands—and all very probably owing to their own culpable indifference at the outset.

If the disease, in any instance, should reach the pustular and gangrenous stage, before the Antiseptic Remedy has been had

recourse to,—if not previously attended to, the animals must be immediately placed in a separate shed and segregated from the herd. The ulcerated parts must be frequently and carefully cleaned out with the Antiseptic Lotion, and dressed with the Antiseptic Salves (see Table of Treatment), whilst going through the course of treatment, including Medicine and Injection, above recommended.

But, besides Medicine, Lotion, and Salve, I have still another remedy in store, both novel and efficient, though its efficiency has been publicly and satisfactorily tested. ("The Cattle Plague: Interesting experiment on Lord Wilton's farm," extracted from the *Manchester Examiner and Times* of March 2nd, 1866. See Appendix.)

We do not claim for this, our invention, any special action or power in curing murrain or plague,—except in so far as its application assists nature, and renders our Medicine of more avail, by purifying the air the beast breathes. Within these limits the apparatus has been proved to work with complete success; and ought to be regarded, especially where valuable stock and breeding cattle are kept, of considerable practical importance—in fact, no considerable farmer should be without it. (See Appendix.)

The moment nascent murrain is suspected, the step should be to remove the animals from the herd or shippin, in order to procure instant isolation. This precaution should never be overlooked. On referring to the interesting experiment conducted on Lord Wilton's farm, just referred to, and to be found detailed in the Appendix, it will be seen that my object (by means of the apparatus and the operation therein described) is to obtain isolation without separation. By the method I describe, a constant supply of vital air—of oxygen—is supplied to the diseased lungs and diseased frame, which operates powerfully in supplementing the action of the Medicine and Lotion, and materially aids in purifying and reinvigorating the system. The thorough oxygenisation of the blood is the first step in the curative process. I may also refer the reader to a communication—dated Sheffield, March 3rd, 1866—from Mr. J. Byrom, of Hazlehead, detailing the particulars of two incidents calculated to strengthen and corroborate my views as to the indispensable necessity of thorough oxygenisation of the blood, as an unfailing preventive and curative of disease in general.

INFLAMMATION OF THE PHARYNX (*Pharyngitis*).—Symptoms : Suspension of rumination and difficulty in swallowing ; the food is forced down by a painful effort ; liquids are generally refused, or swallowed by a convulsive gulp ; enlargement and tenderness extending from ear to ear, and also enlargement of the parotid glands ; the food is occasionally returned through the nostrils ; cough and soreness confined to the throat. Sore throat should be viewed in a more serious light in the ox, than the horse ; and should be treated with corresponding promptitude.

Treatment : When the premonitory symptoms appear, lose no time in administering a dose of the Antiseptic Medicine (see Table of Treatment), and repeat it every three or six hours, at discretion, as the symptoms may dictate. Apply the Lotion (see Table of Treatment) with persistent friction over the enlarged or tender parts, and also over the parotid gland, and the neighbouring parts. As there will be constriction of the muscles, let the rubbing be continued quite round below, from gland to gland—to aid in relieving the constriction, and facilitate deglutition. If the inflammatory action should continue obstinate, continue to administer the Medicine, according to the rule in the Table of Treatment,—until incipient purging be induced ; at that point we must desist ; and resume its use after an interval, if necessary. A timely exhibition of the Medicine will generally overcome pharyngitis without much trouble.

INFLAMMATION OF THE LARYNX (*Laryngitis*).—This is a much more serious affection than the last, though of more rare occurrence. It is attended by a loud and laborious breathing, indicating intense inflammation of the lining membrane of the part. The respirations will exceed the pulsations in number occasionally. The pressure over the part will give intense pain.

Treatment : The moment we have reason to suspect the approach of this serious disease, let a dose of Medicine (see Table of Treatment) be administered immediately, and repeated, at first, every half-hour or hour, until the inflammatory action proves to moderate ; and even to the purging point if unusually obstinate. As in the previous disorder (*pharyngitis*) let the Lotion, with persevering friction, be applied copiously over, and quite round, and in the neighbourhood of the affected part,—as the inflammatory action quickly extends to the neighbouring

parts by sympathy, and greatly increases the obstinacy and inveteracy of the affection, and delays, or prevents a cure.

If neglected, this is an alarming and dreadful disease; and not a moment should be lost in having recourse to the unfailing Remedy. Both pharyngitis, and laryngitis are frequent in cold, ungenial seasons, and in wet, marshy, ill-drained districts; they are of a distinct inflammatory type, and the farmer should be watchful,—especially if he should own, or rent land in such a locality.

INFLAMMATION OF THE BRONCHIAL TUBES (*Bronchitis*).—It is generally associated with partial inflammation of the substance of the organ (the lungs). It is sudden in its attack; preceded by cough, which ever becomes more wheezing and husky. Bronchitis is the intermediate step between catarrh and consumption. It frequently appears as an epidemic; but, in individual instances, is often attributable to neglect or mismanagement.

Symptoms: Rapid and laborious breathing; cough, husky and wheezing; a haggard look and disinclination to move; a thickening of the bronchial membrane, followed by a secretion of viscid mucous, obstructing the air passages; and, if neglected, the disease terminates in suffocation. The breath is hot; the animal loses flesh rapidly, and at length dies a wasted skeleton.

It is especially destructive to young cattle; the cough is distressing; they become hide-bound, with a staring coat. This is very common in low, marshy, ill-drained lands in many districts.

Treatment: How easily all the suffering and loss might be avoided, by administering in time—at the appearance of the very first symptom, more especially in such districts,—a full dose—of the Antiseptic Medicine (see Table of Treatment), and repeating it every hour, third hour, or sixth hour,—guided by the severity of the symptoms. If they appear to moderate, we may extend the interval in repeating the dose; but it must be borne steadily in mind, that the first principles, and unfailing rule in our Antiseptic Practice is to *strangle disease in the outset*, by effectually subduing the nascent, or, in case of neglect, the chronic inflammatory action. The farmer, or breeder must be especially careful and watchful over his young stock, as thousands—aye, tens of thousands of young stock, fall victims yearly to neglect and ignorance—entailing not only an *individual*,

but a *national seasonal* loss ; and the intervention of timely and judicious treatment—preventing such a yearly mortality—would enable the owners to send so many head additional to market, as to supply no inconsiderable additional makeweight in the yearly aggregate revenue, accruing from cattle sales, throughout the three kingdoms.

The utmost attention must be paid to dietary in all inflammatory affections. Mash, gruel, and a strictly antiphlogistic regimen must be persevered in, until the danger has passed.

The Medicine should be used as a constitutional dose—necessary, preventive, and refrigerant—and adopted into general use (as nitre has hitherto been in horse mashes, in all localities); but in marshy, woody, ill-drained, insalubrious districts, the Medicine, if administered regularly, as a constitutional refrigerant in the herd, will be found to fortify the constitution against the insidious attacks of disease, resulting from climatic influences, or generally operating causes. Where its inherent hygienic power and medicinal value are thoroughly understood, no cattle feeder would be without it,—any more than he would be without salt at his usual meals.

INFLAMMATION OF THE LUNGS (*Pneumonia and Tubercular Consumption*).—Inflammation of the air cells and the delicate membrane constituting their divisions—the substance of the lungs—is generally consequent on the inflammation of the air passages; and disease is generated of a very dangerous character. This affection generally arises from the inclemency of the weather, and from general neglect and bad management. If its progress be not arrested by timely and judicious treatment, the inflammatory action will result in the formation of tubercle, ulcer, and death. All chest affections were classed indifferently, till lately, as pneumonia, or inflammation of the lungs; and although inquiry has enabled us to distinguish minutely between the nature and causes of chest disease, we have not yet seen our way to any important differences as to the treatment.

Pneumonia frequently attacks cattle overworked or overdriven,—especially when suffering under extremes of temperature at the same time. It may occur under a hot sun or during a sharp hoar frost. It is frequently—very frequently caused by inhaling the poisonous gases emanating from decomposing feces, litter, and urine, in the shippon and its surroundings.

Symptoms : The animal will appear dull and languid ; flanks

heave ; cough frequent ; mouth hot ; root of horns, ears, and feet extremely cold ; animal fails to move, apparently from want of power ; keeps looking helplessly at his flanks ; or stands with his head extended or drooping.

If the inflammation progress unchecked, tubercles will form, and the disease ripens, or degenerates into tubercular consumption. The diseased cyst becomes filled with fluid, and comes in contact with the neighbouring ones, and the walls are absorbed by the mutual pressure ; when they run together, and gradually form an abscess. The disease is then denominated consumption. The cough has now a deep and peculiar sound, which cannot be mistaken by anyone who has ever heard it. Climatic influences frequently generate this mortal disease, though it as frequently arises from hereditary predisposition. The offspring of a consumptive cow is almost universally of a consumptive habit.

But I should be failing in my duty did I not place in the most prominent light—and though last not least—as a prevailing and powerfully predisposing cause, want of cleanliness, accumulated litter, and want of ventilation—generating and imprisoning vapours and deleterious gases, which, impinging on, and infiltrating into the delicate substance of the lungs, cannot fail to generate and aggravate tubercle of the most virulent type.

A most reprehensible, though too frequent, practice it is our duty to condemn in passing—the storing of hay or provender over the shippon ; which, in such a position, becomes impregnated with the effete residuum of the exhalations of the cattle standing underneath, and can be eaten only to generate disease in the unfortunate animals destined to partake of it.

Treatment : Let a dose of the Antiseptic Medicine be administered on the appearance of the first symptom ; and repeated in an hour, or in three, or six hours,—which is discretionary,—depending on the effect produced by the previous dose. If necessary, this treatment may be continued without apprehension. It is desirable that the Medicine should produce the effect speedily of allaying the inflammatory action : it may, with that view, be safely pursued to the point of purgation.

In the case of animals of pure blood, and high breed, and of great value, the Lotion may be applied full strength, with persistent friction, over the pulmonary region, with the hair glove, or flesh brush (see Table of Treatment) ; as this will attract the latent inflammatory action caused by the superabundant caloric

to the surface, and prove a powerful auxiliary to the refrigerant action of the Medicine taken internally. *No labour or expense will be spared* when the object is to save a valuable breeding animal of pure blood.

EPIDEMIC PNEUMONIA.—Pneumonia sometimes appears as an epidemic, with a dry and hard cough; mouth and breath hot; excessive thirst; the excrement black and solid, or liquid and fetid; root of horn and ears hot and cold alternately; sometimes lameness; tenderness along the lumbar region; eyes bright and tearful; grinding of the teeth; violent heaving of the flanks; nostrils dilate and contract with spasmodic violence; violent sweats; milk secretion entirely suspended; tumours appear and disappear with shivering, and reappear again; liquid and fetid stools succeed, with tenesmus; sensibility is suspended; respiration becomes quickened and laborious; the breath becomes gradually colder, and more and more offensive; blindness succeeds; the animal falls to the ground; and after several efforts to stand on his legs sinks to the earth, and dies. The course of the disease seldom runs beyond six or seven days; though young cattle, in high condition, will often fall victims in four-and-twenty, or eight-and-forty hours. We have here pneumonia, associated with typhoid disease; and few years pass in which it does not visit some of the districts of the United Kingdom.

Treatment: There is an alarming and malignant form of the disease, and the promptitude of the farmer and stockowner must be equal to the occasion. The first step will be to administer a dose of the Medicine at once, on recognizing the first symptom; repeating the dose, at discretion,—in an hour, or in three or six hours,—regulated by the obstinacy, or subsidence of the symptoms. If the Medicine be administered in time, and continued at proper intervals, in eight cases out of ten, the disease will be at once arrested, and future suffering, expense, and trouble, happily and certainly avoided. But if in case the disease should appear obstinate,—we must not (in the epidemic form of this disease) delay employing the Injection, to remove instantly, and prevent the accumulation of any residuum of nascent morbid secretions from the lining membrane of the intestinal tube and its connections. This, with the action of the Medicine taken by the mouth, will clear away any morbid secretion or deposit which, by accumulating in the primæ viæ, might react

on the system, and aggravate the symptoms; generating and propagating putrefactive action throughout the entire organism, from the common centre. For we have here not alone pneumonia to deal with, but a pneumonia associated with a disposition to typhoid action of a malignant character. This disease should be attacked, at the outset, by the most energetic and persistent treatment—before congestion, or typhoid action has been generated; and whilst it retains its primary character, as a disease of the respiratory organs.

If we should succeed in arresting this frightful disease, or in effecting an ultimate cure,—great care must be taken to perfect it, by studious attention to dietary, proper ventilation of the shippon, and cleanliness. Malt mashes, clover, hay—according to the season, should be offered as food; and, if the season permits, the animal should be turned into a railed space in the pasture field. The moment this epidemic appears in a herd, or is even known to exist in the district,—every animal on the ground should receive the Medicine as a preventive; for such a medication of the blood and system will tend, besides, to add vigour to the system, and promote and establish condition.

INFLAMMATION OF THE PLEURA (*Pleurisy*).—This disease is caused by imprudent exposure to cold after a long drive or hard labour; and may be even generated by the bedding out of cattle during cold winter nights—their sides coming in contact with the cold frozen ground. Inflammation of the lining membrane of the chest may be caused, besides, by the noxious gases exhaling from the fermenting litter, or the dungheap, in an ill-ventilated shippon, with its neighbouring muckheap; or it may arise from contusion or injury.

Symptoms: It is distinguished from other chest diseases by a shivering of the shoulders and upper part of the chest; for, even when the animal is standing quiet, these parts tremble violently. The cough is short and painful; the breathing not so laborious as in some other chest affections; the sides are tender to the touch, and along the affected side or sides are frequent twitchings. In bronchitis the animal dies of suffocation; in pneumonia we have congestion of the lungs; and in pleurisy effusion, terminating in suffocation.

As in other inflammatory affections, we must first administer a dose of the Medicine (see Table of Treatment), to be repeated at discretion, and according to the urgency of the symptoms, at

intervals of one or two hours, until the inflammatory act in succumbs to the refrigerant action of the Medicine. But if the animal be high bred, of pure blood and of considerable value, the Lotion must be applied, as in the case of pneumonia, full strength, with persistent friction over the pulmonary region ; as this will attract the latent inflammatory action—the superabundant caloric—to the surface, and prove a powerful auxiliary to the refrigerant action of the Medicine taken internally. No labour or expense will be spared, where the object is to save a valuable breeding animal, of pure blood.

INFLAMMATION OF THE BOWELS (*Enteritis*) is of two kinds : inflammation of the external coat of the intestines, accompanied by fever and costiveness, or constipation ; or inflammation of the internal or mucous coat, attended by violent purging. The first of these affections is designated enteritis, and is in most cases sudden in its attack : working cattle, and animals of middle age in good condition are most subject to it. Milch cows and young animals are comparatively exempt from it. It generally occurs in hot weather, and after a long drought. The causes of enteritis are generally the presence of acrid substances, indurated fœces, long-continued and obstinate costiveness, spasmodic colic, and a strangulation of any part of the intestinal canal, and sudden or continued exposure to cold and inclement weather in the winter season.

The beast may appear, the day before, in apparent health ; but he suddenly becomes depressed ; muzzle dry and staring coat ; the bowels seem drawn together with a kind of spasm ; the whole abdominal region is painful to the touch, and is drawn together in lumpy contractions ; invariable costiveness prevails, with thirst, heat, and great inquietude ; this state is succeeded by disinclination to move ; weakness and trembling in the hind limbs ; heaving of the flanks ; heat of the mouth, ears, and root of the horns ; a small rapid pulse ; rumination ceases ; appetite is gone ; and the fœces, when voided, are streaked with blood ; and the animal moans piteously. If not relieved by timely treatment, the weakness and suffering increase ; and the animal dies exhausted, and in convulsions, discharging a bloody fetid fluid from mouth, nose, and anus. This disease appears frequently as an epidemic ; but it occasionally arises, in hot summers, in upland pastures, from the herbage becoming unusually stimulating ; and in marshes and low

ground, from the arid plants acquiring additional pungency and a deleterious agency. Mildewed and unwholesome food will produce a similar effect. It is sometimes caused by the animal drinking too plentifully of cold water, after being overheated with work.

Postmortem examinations have evidenced engorgement, coagulation, discolouration, ingestion, intense inflammatory ulceration, and gangrene. When gangrene ensues, the event is marked by a sudden remission of pain; a sinking of the pulse, and a distension of the belly.

Treatment: In cases of enteritis I should advise the immediate application of the Antiseptic Lotion, full strength (see Table of Treatment), with severe and persistent friction—the hand being covered with the hair or coarse woollen glove, or with the flesh brush, over the entire abdominal region. Let a dose of the Medicine be administered without loss of time (see Table of Treatment); and let the dose be repeated, in severe cases, every half-hour, hour, or at longer intervals, as the urgency of the symptoms may dictate. If the symptoms should not moderate, have recourse at once to the Injection, to clear out the *primæ viæ* thoroughly, and thus dislodge any latent acrid, indurated, irritant, or putrefying matter; which will certainly tend to allay the inflammatory action.

The dietary must be cooling; malt-mashes and well boiled gruel may be offered; and if a cure be effected, great care must be taken not to discontinue the treatment too early; but rather let the intervals between the doses be lengthened, and let a little time elapse before the animal is placed on full feed.

DIARRHŒA AND DYSENTERY.—A purging or looseness—a too frequent passing of the *fæces* of the great intestines, preceded by pain—and differing from dysentery, which is a contagious disease. The proximate cause is an increased peristaltic action throughout the whole, or a great part of the intestinal canal. This increase of the peristaltic motion occasions looseness or diarrhœa.

It may be occasioned by abuse of purgatives; feeding on poisonous plants, sudden change of food—especially from dry to green aliment, surfeit, bad water, and hurried and unhealthy atmospheric influences; when it assumes the epidemic type; or it may be sympathetic or symptomatic, proceeding from abscesses or the irritation of other diseases. When

epidemic, the cows of a district are suddenly attacked, though it be not contagious. Acute cases, under ordinary treatment, frequently prove obstinate and fatal. It is sometimes a salutary attempt of nature to get quit of something which, if retained, would be injurious.

Treatment: Let a dose of the Antiseptic Medicine be administered immediately; repeating it at intervals of from half-hour, to one, or three hours, according to the urgency of the symptoms. Let no time be lost, however, in endeavouring to clear out the *primæ viæ*, as in obstinate enteritis. If the pain or griping should appear to be exceedingly severe, apply the Lotion, with persistent friction, with the hair or coarse woollen glove or flesh brush over the part; and if the symptoms should not moderate after such preliminary treatment, at once administer the Injection, to clear out all irritable matter from the intestinal canal; and thus endeavour to stop the purging. These remedies, if properly applied, will never fail to attain the object, unless culpable neglect and delay should have placed the patient absolutely beyond the possibility of remedy.

DYSENTERY.—This disease is marked by contagious fever; frequent griping evacuations, chiefly mucous, and sometimes mixed with blood; tenesmus; the natural *fœces* being retained, or voided in small, compact, hard substances, with pain. In other cases the purging will be present from the beginning; the animal will be tormented with a constant desire to void its excrement, accompanied by straining and protrusion of the rectum, and severe colicky spasms; sometimes preceded by heat of the skin and frequent pulse; a slight shrinking when the loins are pressed upon; the smoothness and sleekness of coat disappears, and it feels slightly harsh and dry; the appetite, spirit, and condition are appreciably failing. When the vesicles that appear on the surface of the voided *fœces* remain long unbroken, their toughness and consistence show that they are composed of the mucous that lined the intestines, which could be separated only by violent irritation, leaving the denuded membrane a prey to heightened and fatal stimulation; a purulent matter is secreted, and ultimately gangrenous evacuations are discharged involuntarily; the body becomes covered with cold perspiration, and the animal dies.

Treatment: Our first attention must be paid to the nature and degree of fever at the outset. If the diathesis was not of

the typhoid type from the first, there may be a general tendency of the disease to pass into an erysipelatous type. In any case, the first step will be to administer a dose of the Medicine (see Table of Treatment), and to repeat it every hour or second hour, as indicated by the urgency of the symptoms; and this, at the outset, with the view to diminish febrile or inflammatory action, as well as to act as an antiseptic, in case of any typhoid or erysipelatous tendency. If we apprehend from the indications of the pulse and general diagnosis, that the febrile symptoms are of an inflammatory and mixed type, and might degenerate into the typhoid, there will be an absolute necessity for not losing a moment in having recourse to the Injection, to supplement the refrigerating and antiseptic action of the Medicine in counteracting this tendency, by cleaning out the bowels from all latent putrescent fæcal contents; and this step must be repeated, if the disease should prove obstinate, as the contents of the intestinal canal will still retain their putrescent character, and will, by absorption, continue to poison the entire system, preventing any hope of ultimate cure.

This mode of treatment, though a little troublesome, costs little more than the pains expended in carrying it out efficiently; and may, in many instances, prevent the loss of many valuable animals to the farmer and stockholder. After this method becomes familiar, it will be resorted to as a matter of course, and indispensable; and the neglect of it will be recorded as a culpable dereliction of duty.

COLIC is of three varieties: spasmodic, starcoraceous, or flatulent. In the first variety the pain goes and returns, and moves about, the belly is soft, and there may be little acrid matter in the bowels; in the second variety, the griping is very severe, with obstinate constipation—dependent on an abnormal action of the absorbents, or a deficiency of the peristaltic power of the intestinal tube; and the third variety is accompanied with costiveness and a collection of gas, distending the bowels irregularly, and causing a rumbling noise. The spasmodic action extends, to a greater or less degree, throughout the intestinal canal—adding considerably to the torture of the animal.

Treatment: In our cure of these three different varieties, we must be bold, and, as some may think, indiscriminate; but the inherent power of the remedy, and its collective virtues, amply justify our confidence.

In flatulent colic, the sufferings of the animal, and his moanings, are painful to witness : he strikes his belly with his hind feet ; the right side of the belly distends ; and there is a frequent discharge of imprisoned gas both by mouth and anus. There will be constant restlessness—getting up and lying down immediately ; and all accompanied by increasing fever and uneasiness.

Treatment : Lose no time in administering a full dose of the Medicine (see Table of Treatment), repeating it every quarter or half-hour until the symptoms moderate, and relief be obtained. The relief will frequently be immediate in this variety. Apply the Lotion, with persistent friction, as already recommended so frequently, and in the manner described in the Table of Treatment, if relief should not be obtained by the operation of the Medicine. In this variety, the farmer and stockholder will be seldom disappointed.

In the second variety—starcoraceous colic—the same treatment must be pursued, with additional persistence ; especially the application of the Lotion, as directed above, to supply and meet any deficiency of peristaltic action in the intestinal tube ; and to stimulate the secretories at the same time, and encourage, by the stimulus of friction, a deposit of mucous fluid, to lubricate the intestinal tube, and encourage it to throw out an increased quantity of aqueous fluid to soften the contents of the intestines—these facilitating the forward movement of the indurated and constipated fœces. In the third variety—flatulent colic—the treatment may be the same, as in the two preceding varieties ; and the application of the Lotion, with friction, will be especially serviceable in relieving the spasmodic action, extending, to a greater or less degree, throughout the whole length of the intestinal canal. On referring to the Table of Treatment, it will be found that our form of Injection—in every case of intestinal irritability—from the menstruum in which it is conveyed, cannot fail to prove a grateful and efficient lubricant.

HOOVE, OR DISTENSION OF THE FIRST STOMACH (*the Rumen*).—When cattle eat voraciously, and gorge themselves with food—especially succulent food—the first stomach, or rumen, dilates, almost to bursting. This affection is designated by different local names—the animals are said to be blown ; grain sick ; maw bound, &c., &c. The swelling is not so great in simple incipient distension as in hoove, and is also attended with

occasional eructation. The flanks will feel hard and unyielding.

Treatment: The probang should always be used to ascertain the degree of the distension of the stomach. If it should move about easily, it will show, that though the animal is inconvenienced and in some danger, the rumen, or stomach, is not stretched to the utmost. It is not safe to trifle with this affection, as instances have been not unfrequent, where, suddenly, amidst uneasiness and heaving, stupor and death have rapidly succeeded. But the true remedy is the Antiseptic Medicine; and let a full dose, largely diluted (see Table of Treatment), be administered immediately, in order to rouse the stomach to healthy action; to combine with the extricated gas, and to prevent future accumulation, by combining with it as soon as produced; and the chlorine of our Remedy combining with the hydrogen gas—the chief constituent of the gaseous volume—for which it has a strong affinity, will become immediately absorbed by the water of the menstruum, and its character will be altered. There can be no objection to the combination of chlorine and hydrogen, in this instance, in the stomach; as the other components of the Antiseptic Remedy neutralize anything deleterious, and convert it into what is medicinal and curative.

The sooner the Remedy is administered the better; as the larger the distension is permitted to continue, the greater the volume of extricated gas; and the greater, of course, the suffering and danger of the animal.

Surely this is a more humane and natural method of cure than making an incision, at least five inches in length, through the flank into the stomach, in order that the indigested contents might come rushing out in a copious stream.

Hoove differs from distension in this, that the substances have for some time been undergoing the process of fermentation, instead of maceration and softening as in the healthy and natural digestive process. The acid principle is secreted; and the moment the Antiseptic Medicine mixes with the contents, its components combine with the free acid, and the dilation and distension gradually subsides, as the result of the chemical union.

This disease is often produced from taking an animal from poor to succulent food—as clover, rich fog, or turnips:—he eats greedily—the stomach becomes unnaturally distended by the

food, and ceases to act—and becomes stretched, almost to bursting with extricated gases—chiefly hydrogen or sulphuretted hydrogen.

We shall say nothing of *strangulation*, perversion of the rectum, or *intususception* of the bowels, though we have treated these affections in detail in our work on human beings; neither shall we touch hydatid or hydrocephalus, further than to remark generally, that the Antiseptic Medicine, if administered according to the instructions to be found in the Table of Treatment, will, by its inherent power of absorption, ultimately relieve the suffering animals of the fluid pressing on the brain—the cause of suffering in both cases. We shall pass over epilepsy, palsy, and tetanus, with the remark that if the Lotion be applied, with severe friction, as recommended in the Table of Treatment, to the nape of the neck, and along the course of the spinal column, in order to stimulate the nervous system to the utmost, and endeavour to re-awaken motion, and propagate it throughout the organism—taking care, by means of the stomach-pump, to endeavour to introduce a dose of the Medicine into the stomach, (though any beneficial results by so doing be nearly hopeless), you will be doing the utmost in your power to recover even a valuable or favourite animal under the circumstances.

We must not pass over *phrenitis* or *sough* altogether without notice—but here any efficient treatment is scarcely practicable; and we fear that even humanity could recommend no better remedy than slaughter, to prevent any hazard to human life.

So soon as the present work on animals shall be completed, both works—that on human beings, and that on animals—will be bound up together, or sold separately, at a low price, so as to be within the reach of all, and to serve as medical handbooks for the people.

In all cases of constipation let the Medicine be administered, and continued according to the instructions to be found in the Table of Treatment, until the point of purgation be arrived at. This is the safe and unfailing rule under our system. Neither shall we dwell on *apoplexy* or *blood-sticking*, In such cases the usual method will be to slaughter immediately. In all cases of fracture, or injuries from external violence, recourse should be had to the Lotion immediately, when it should be copiously applied; and it will often succeed in establishing a cure when little expected.

In all diseases of the eye and eyelids, *ophthalmia* ; cataract ; gutta serena ; cancer ;—wherever we find dimness of the cornea, weeping, swelling of the lids, or any evidence of inflammatory action, the application of the Lotion, as directed in the Table of Treatment, will be, on all occasions, attended by the best results.

In diseases of the ear, including contusions, simple inflammation, itching, scurfiness, fungous granulations, the Lotion will be found a safe and reliable specific.

INFLAMMATION OF THE KIDNEYS (*Nephritis*).—This disease is known by pain in the region of the kidneys, shooting along to the ureter, and by fever accompanying the pain ; a drawing up of the testicles ; high-coloured urine, frequently discharged ; and considerable difficulty and straining in passing it, while it is forcibly ejected in small quantities ; the loins being unusually tender and hot. In a day or two the beast will become dull ; careless about food ; difficulty of staling increases ; urine mingled with blood ; dry muzzle ; horns and ears cold ; pulse frequent and hard ; breathing quickened ; diarrhoea and dysentery appear, with fetid evacuations, discharged with effort, and of diminutive quantity, and at length cease altogether ; sweats break out about the shoulder, back, and sides ; tremblings extend all over ; patient falls, and dies in two or three days thereafter.

This disease often occurs in the spring time of the year. In consequence of the too rapid progress of nutrition, a predisposition to inflammation ensues, and becomes directed to, and centres in, the kidneys. The inflammation extends to the larger intestines by sympathy—provoking dysentery and obstinate constipation of red matter, and pure inflammatory action as a consequent.

Treatment: The free application of the Medicine is here indicated, with the Injection, if necessary—to subdue the inflammation, *without loss of time*. The clyster should be soothing and emollient, as recommended in the Table of Treatment for organic or chronic irritation, caused by inflammatory action. We must also employ the Lotion over the lumbar region, with friction externally, and behind the peritonæum—where one of the kidneys is situated. The renal arteries proceed from the aorta ; the nerves are branches of the intercostal, and the excretory duct of the viscus is called the ureter. At the middle of the

kidney, where the blood-vessels enter it, is the pelvis, which diminishes, in funnel shape, and conveys the urine from the kidneys to the bladder. A sharp pain is felt on the affected side; and the Lotion, with friction, must be used persistently over the seat of pain until relief be obtained. The animal will evidence the pain by twitchings, and turning the head round, and gazing helplessly at the side affected.

We shall not dwell on **STONE**, or **CALCULI**, further than to remark that the Medicine has been found to relieve the excruciating pain consequent on these affections; and, administered in time, would arrest, or perhaps ultimately aid in dissolving, the unwelcome intruder. At all events, in fattening animals, it would enable the beast to tide over the period in comparative comfort, and free from pain; and materially aid in promoting and hastening condition.

ABORTION, or **SLINKING**, is caused by blows, or violence; by fright or over-excitement; and sometimes by the employment of medicines of offensive odour—as carbolic acid and others. We have heard of several instances of abortion in consequence. There are many instances in which putrid smells have produced the effect; and the inmates of crowded cowhouses are not unfrequently subject to this misfortune. It is sometimes so frequent, as to assume the character of an epizootic or epidemic; and if it occurs in a shippoon, or in a herd, an untimely birth is frequently followed by several—and this from sympathy.

Symptoms: Rumination ceases; animal becomes listless and dull; milk dries up; motions of fœtus become more feeble, and at length cease; slight enlargement of the belly; walk becomes feeble; animal prefers the recumbent position; thereafter red, or yellow, and glairy fluid, escapes from the vagina; a symptom which is generally decisive; breathing becomes laborious and slightly convulsive; the belly has lost its natural rotundity; animal begins to moan; pulse becomes small, wiry, and intermittent; labour comes on, often attended with difficulty and danger. If the abortion occurs from violence, the throes are more intense and the danger proportional. On pastures where inflammatory action is frequent amongst the stock, abortion is most usual. It has often happened after violent thunderstorms; and the mysterious agency of atmospheric influences seem to induce unexplained, but malignant action, in the

vaccine frame. Whatever produces violent excitement—or sudden disagreeable impressions on the external senses—whether of terror, or disgust—whether by sight, sound, taste, or smell, may often prove the primary cause of abortion.

Treatment: If there should be any dread of plethora or oppression resulting from too high condition, likely to upset the equilibrium of the circulating system—especially in young animals—lose not a moment in administering a dose of the Medicine (see Table of Treatment), which will act as a tonic, sedative, and refrigerant, and remove any nascent irritation. If the system should have become feeble and emaciated, or the contrary, with a tendency to sinking—the restorative virtues of the Antiseptic will supplement the weakened functional action, and induce firmness and tension, with renewed vigour. The Lotion may be applied over the loins and flanks, with friction, in the usual manner, and the Injection may be thrown up the vagina (see Table of Treatment) two or three times a day, till irritation be allayed, and the equilibrium appear to be restored. This should always be repeated at the period when we have reason to expect periodical abortion.

If the frame should be relaxed—general strength and elasticity, leading to ultimate vigour and robustness, will frequently follow on the timely and judicious use of the Medicine and Lotion.

PREGNANCY.—By the improvements in veterinary practice, we are now enabled to ascertain the existence of a state of pregnancy at as early a stage as six or eight weeks. The beating of the foetal heart will be distinctly heard twice, or more than twice as frequent as that of the nether. The ear should be placed to the right flank, moving it, from the upper part, downwards and backwards.

It is of the greatest importance that the blood current should be kept pure during gestation; for if it be the fountain from which the whole body is nourished, and from which every secretion of the body is separated—every care should be taken to preserve it from taint, and its remarkable physical properties unchanged by inflammatory, or any other abnormal, action—otherwise the nourishment of the foetus, which is growing in the womb, cannot fail to become unhealthful (the parent suffering at the same time), seeing that it is nourished from the secretions derived from the body of the mother.

It is our duty then to medicate for both at the same time, and to ward off threatened, or incipient disease ; more especially of the febrile or inflammatory type ; such as general fever, garget in the udder, puerperal fever, and other affections, by administering regular constitutional doses of the Antiseptic Medicine, two or three times a week, during pregnancy and gestation. We should be especially watchful as the period of calving approaches—indicated by symptoms so uniform and familiar that we need not take time to specify them.

If labour should have been protracted or difficult, the animal must be tenderly watched, and kept as quiet as possible ; warm mashes and gruel should be presented, and a dose of the Antiseptic Medicine (see Table of Treatment) administered to ward off fever, excite healthy functional action, and assist nature in perfecting the recovery.

The cow should be left with her calf undisturbed, to perform those maternal duties which nature has designed and instinct impels her to ; but a cooling and gentle aperient should never be neglected two or three hours after. And the Antiseptic Medicine is, in all such cases, the unfailing remedy. We have already counselled this as a preventive of garget and milk fever, and may now add inflamed teats and hardening tendencies in the udder. If the calf be permitted to run with the mother in the pasture field, this will, in most cases, be prevented ; if not, she must be gently and carefully milked three or four times every day whilst under the Medicine. The Medicine, too, will aid the cleansing—warding-off irritation and fever ; and its antiseptic quality effectually arresting any tendency to putridity at the same time, if the afterbirth should be too long retained.

MILK, OR PUERPERAL FEVER.—If this disease should supervene, before administering the Medicine, no time should be lost in giving a dose ; which, if repeated according to the directions in the Table of Treatment, will allay local inflammation before the system has had time to sympathize and become a prey to puerperal fever. Few diseases are more dreaded ; as local inflammation is induced, of a peculiar character, and of an intensity, obstinacy, and fatality unknown at other times.

The disease is primarily inflammation of the womb, or peritoneum ; which, more especially, if neglected, becomes general, and very speedily unmanageable and irrepressible.

Young animals are not so subject to this too fatal malady as

cows of mature age and full growth ; as with them the plenitude of nutriment goes rather to increase size, and perfect the organism—instead of becoming the foundation of disease, or diseased functionary action.

This malady appears as early as two hours ; and as late as four or five days after parturition.

In this disorder we must endeavour to subdue the inflammatory action as quickly as possible, or the disease will become violent and unmanageable. Besides administering the Medicine every quarter, half-hour, or hour, till the symptoms moderate—in obstinate cases the Injection (see Table of Treatment) should not be delayed ; for its searching and antiseptic quality will cleanse, and purify, and deodorize the parts effectually, and arrest any tendency to unhealthy functional action and putridity ; and its refrigerant power will be felt, not only locally, but extend its antiphlogistic influence to the neighbouring parts, and by sympathy—from such a sensitive centre—throughout the system—aiding the Medicine powerfully in subduing the pervading fever.

In sore teats and garget—which we have already alluded to—in cases where the Medicine and Lotion have not been hitherto used as preventatives, if recourse be had to them at any moment, under the guidance of the directions in the Table of Treatment, the suffering and inconvenience consequent on both affections, will very quickly disappear.

MILK AND FLESH PRODUCTION.

MILK.—Men may live upon milk, unless they have been accustomed to the drinking of wine. For all nations use milk, and many live upon it alone—with the single exception of the Japanese.

Under pregnancy, I have pointed out the necessity for keeping the blood-current pure during gestation ; for it is the fountain from which the whole body is nourished, and from which every secretion of the body is separated ; so that every care should be taken to preserve it free from taint, and its remarkable physical properties unchanged by inflammatory, or any other abnormal action ; otherwise the nourishment of the foetus, which is growing in the womb, cannot fail to become unhealthy—its principles being destroyed—and the embryo

must suffer along with the parent—seeing that it is nourished from the secretions derived from the body of the mother.

The milk begins to be secreted in the last months of pregnancy. After calving, a serous milk, of an aperient quality, is secreted, intended by nature to carry off the black glutinous fœces which have been accumulating in the intestines of the embryo. The calf should never be deprived of the benefit of this natural provision. If constipation should occur, from any natural or accidental cause, then a dose of the Antiseptic Medicine must be administered immediately, to correct the irregularity; and repeated till the point of purging be attained. The calf should not be allowed to suck oftener than three times a day, for fear of constipation, or surfeit. Constipation often occurs when the calf has been fed too early with the common milk of the dairy.

The Medicine, well diluted (see Table of Treatment), should be poured quietly down from a small horn, or introduced by the stomach-pump. If constipation should occur from after-feeding, such as soft, fine hay—the same course must be taken, till relief be obtained.

But if it was necessary and important to recommend attention to preserving the purity of the blood-current—the fountain from which all vaccine secretions are supplied (the milk, the most important, and I do not except the flesh itself), and this, to preserve the health of the parent animal, in the first instance, and the health of the embryo or calf, after birth—of how much greater importance must it be to continue to perfect and preserve the health and vigour of the animal destined to secrete the fluid of which all mankind partake, with the exception of a single nation! The cow is the milk-producing animal of our latitudes; and with the vaccine race we have to do at present. Cow's milk, then, is an essential part of human sustenance; being adapted to every state and age of the human body.

The milk of the cow approaches very nearly to that yielded by the female breast; but totally differs in aroma. It contains a larger proportion of cream and cheese, and less serum than human milk, and less sugar than mare's or ass's milk. The milk of the woman *fed on vegeto-animal food* never ascends spontaneously, though exposed for many weeks to the heat of a furnace. The reason is, that the caseous and cremoraceous

parts cohere together by means of the sugar, more intimately than in the milk of animals, and do not so easily separate ; and hence the ascension is prevented. The milk of the woman is coagulated by the acid of salt, and by the acid of the gastric juice of the infant. The milk of a woman giving suck, *who lives upon vegetable food entirely*, like cow's milk, easily, and of its own accord, ascends, and is acted upon by all coagulating substances, like the milk of animals.

In respect of the time of digestion :—during the first hours of digestion, the chyle is crude, and the milk less subacted ; but towards the twelfth hour after eating, the chyle is changed into blood, and then the milk becomes yellowish and nauseous, and is spit out if given to an infant. The milk secreted immediately after delivery, as in the case of animals, is serous, and purges the bowels ; but it becomes thicker and more pure ; and the longer an animal suckles, the thicker is the milk secreted ; so that new-born animals cannot retain the milk of an animal which has given milk for twelve months, on account of its spissitude, or richness.

The milk immediately becomes highly impregnated with any Medicine administered to the female ; and the readiest means of curing any affection in the suckling is by attention to the dietary of the mother ; or medicating to the suckling by first administering the remedy to the parent ;—for the abnormal, or unhealthy state of the suckling arises, almost universally, from imbibing the milk of the mother ; and the suckling thus drinks in ill-health with its mother's milk.

If cow's milk, then, be an essential part of human sustenance, of what vast importance it must be to preserve the blood of the vaccinerace pure, which supplies such an important necessary.

The pure alkalis and acids act directly on the system : the one, by correcting the acids ; the other, by adding to the system the element of which it is, at the moment, deficient. The mixed salts, holding these two elements in combination, are appropriated by the system according to chemical election—by taking therefrom any alkaline property it may require, and rejecting the acid ; or taking the acid and rejecting the alkali. In this way we have alkaline and inflammatory diseases, and acid or congestive diseases. If we take into view the electrical energies of these bodies, we find that oxygen and acids go to the posi-

tive, and hydrogen, alkalies, and inflammable bases, to the negative pole.

In our work on Human Beings, we have glanced at the affinity between chemical, electrical, galvanic, and vital action; and we have hinted that time may prove their identity—the one being but a higher form of the other.

The neutral salts, holding both the acid and alkaline principles in combination, are found in milk—differing in quantity and quality, according to the diversity of the animals, and ever-varying circumstances.

But in the case of abnormal functional action supervening, in ever so small a degree—that moment the principles of the secretion suffer an abnormal change, and the health of all those who may partake of the milk—however inappreciably at the moment—must sensibly suffer at the same time.

The amount of the injury to the public will depend on the extent of the culpable neglect of the dairy-farm, or cow-keeper—will depend on how long, and to how great an extent, either has neglected to apply the remedy, which possesses the inherent power and associated virtues necessary to restore the health of their diseased stock; and that remedy is, fortunately, both cheap and within the reach of every one.

The Antiseptic Medicine possesses all the saline and other components necessary to correct any change in the principles of the milk, the moment they show any tendency to alter in quality; and this arising from any unhealthy functional action taking place in the animal, and injuriously affecting the secretions.

It should be borne in mind, that milk is capable of passing through the vinous, acetous, and putrefactive fermentations: though, from the small quantity of alcohol it affords on distillation, the first passes quickly away. But the most frequent communicable injury arises as the result of any appreciable inflammatory or febrile action taking place within the animal; which immediately alters the character of the secretions, and must exert an unhealthy and injurious influence on all who partake of the nutritive fluid, in proportion to its intensity.

In the name of the community, then, and in the interest of the universal public, we deem it a duty incumbent upon us, to call the attention of all dairy farmers and cowkeepers, to the

plain, undeniable, and incontrovertible, facts we have been stating; and we have no doubt, that, on due consideration, they will feel the heavy responsibility resting on their shoulders, when they reflect that the health of the universal public is in their keeping to an appreciable extent; and such being the case—we repeat it—that we have not the slightest doubt, that they will conscientiously listen to the call of duty and self-interest—which both pull in the same direction—and lose no time in making intimate acquaintance with the virtues of the Antiseptic Medicine, which contains all the components necessary to act on the secretions of the animals in their keeping, if used systematically in their shippens, as a necessary constitutional medicine, to be administered on the slightest appearance of suspicious symptoms amongst the animals, old or young; thus preserving not only the milking properties of their stock in perfection, but saving the lives of many valuable animals that would, otherwise, be yearly lost, because of their ignorance of the inherent power and many virtues of a cheap, easily-obtainable, and easily administered specific, like the Antiseptic Medicine; which, if had recourse to in time, will never fail them, and never disappoint them in its operation, if administered timeously, and in strict accordance to the instructions to be found in the Table of Treatment.

But the FLESH itself is merely a secretion, and formed by the secretions deposited by the arterial capillaries; so that, if the Antiseptic Medicine be a necessary constitutional preventive and remedy which should be regularly and systematically administered to preserve the health and vigour of the herd, in order that the principles of the milk secretion should retain their normal purity—surely it is quite as important that the same care should be taken with a view to the production of healthy flesh meat, one of the principal articles of human consumption.

This plain and simple statement is so convincing and important, that we should be entering on an unnecessary duty, did we waste time in endeavouring to impress the public with truths so self-evident and incontrovertible.

Wherever cattle are kept, then, under the process of preparation for the butcher, it is clear the constitutional use of the Antiseptic Medicine should be regarded as an indispensable requisite—if the desire of the intelligent feeder should be, as it

ought—by its systematic use to induce and preserve amongst his animals unvarying healthy functional action, regulating the secretions, at every moment, and insuring, by its timely use, normal capillary action; and, by such means, clothing the animal frame with an abundant deposit of healthy fleshly covering; which will supply to any community, and elsewhere to the human family—wherever the Antiseptic Medicine is used, in the constitutional regimen according to definite instructions—an abundant supply of wholesome flesh meat, one of the principal articles of human consumption.

The action of the Antiseptic Lotion is very simple and intelligible.

If the cuticle—the skin—be strongly abraided—rubbed—or strongly urged by friction, and by the simultaneous pressure of minute substances that enter into its perspirable pores, the mouths of its minute veins, or *inhalants*, are thus rendered absorbent.

And we also know that the *exhalants* have their origin in the capillary system of any part, where they are distributed—the capillary system being the seat of inflammatory and febrile action—and their terminations on the surfaces of the serous and mucous membranes, and on the outer surface of the true skin *externally*.

The Antiseptic Solutions—the Medicine and the Lotion—have an inherent attraction for caloric—a superabundance of which, existent *in the system generally*, or *in any particular part*, causes inflammatory or febrile action, *local* or *general*. The Medicine acts on the *internal* mucous and serous membranes, stimulating their surfaces and attracting the superabundant caloric, and feeding their absorbents with the Alterative Antiseptic Compound; and the Lotion acts in a similar manner on the skin, or *external* surface of the body; and both *on the same principle*, in different situations; viz., in attracting, absorbing, and removing superabundant caloric, thus both facilitating and accomplishing its removal: *internally*, by the chemical refrigerant action of the Medicine; and *externally*, by attracting the caloric to the surface of the skin: in either case—*whether by combined or independent action*—exhausting inflammatory and febrile action, and restoring the normal temperature and healthy constitutional functional action throughout the system. At the same time, putrefactive and fermentive action is arrested by the antiseptic energy of the *topical remedy*.

CLASS III.

SHEEP.

WE have already treated of the diseases of horses and cattle, and the means of prevention and cure; and before giving an account of the diseases of sheep, we shall notice some specialties in their physical conformation—which course will not be unacceptable to the reader.

Although the brain of the sheep be somewhat larger than that of the ox, its nervous energy soon becomes exhausted; and therefore we cannot animadvert too strongly on those brutal tenders who make a practice of chasing these poor animals with a dog trained to such cruelties; and often running them down themselves, like brutes in human form.

Their arterial and venous system resembles that of the ox; with this difference, that from a peculiarity in the conformation and action of the right ventricle—which we must not take time to explain with anatomical precision—the animal is more easily injured by sudden and violent exertion than the ox even; and this will go to strengthen the caution we have already given, and will plead in the tones of humanity. The arterial pulse of the sheep is from 70 to 75; and the force or weakness of the circulation may be most conveniently determined by placing the hand on the left side of the chest, where the beating of the heart will be distinctly felt; and this will be sufficient for all practical purposes. It may be felt also at the femoral artery, which runs obliquely down the inside of the thigh; and the force and weakness of the circulation, as determined by trial in the modes we have indicated, will serve to guide us in the diagnosis and treatment of disease.

But there is another point connected with the circulation in this animal which demands particular attention.

The exhalent vessels of the skin—the terminations of minute ducts—the perspiratory tubes—through which the effete

matter is excreted in the form of fluid or vapour, do not act with the same ease and freedom as in the horse or in man; the flow of the perspiration is impeded during muscular labour; and the effete matter is thrown back on the system, oppressing the heart and lungs, and the blood current becomes impure, and unequal to the task of maintaining muscular energy.

The secretion of unctuous fluid, however, termed the yolk, which is provided for the nourishment of the wool, is supplied by secretions which act with peculiar activity; and, it may be presumed, independently of the natural exhalants. The lungs of the sheep, then, have to perform a double duty, supplementing the inaction of the skin exhalants whilst performing the necessary duty of their proper office.

The sheep, like the ox, is a ruminant; and the structure of their stomachs is on the same plan. In administering medicines, then, the fluid should be allowed to trickle down the gullet slowly and gently, as we have recommended in the case of the ox, and for the same reasons—to prevent the Medicine, in its descent downwards, from forcing the pillars of the œsophagean canal, thus entering and becoming inert and lost in the rumen, or first stomach. Doses for sheep are generally about a sixth of the quantity given to cattle, age and size considered; and for young lambs only a third, to half the quantity given to adult sheep. A eid's enema and stomach-pump, adapted for sheep, should be in the hands of every breeder. It is equally suited for all domestic animals. (See Table of Treatment.)

The Antiseptic Lotion and Antiseptic Salve will be found to be the very best preventatives and curatives in the cutaneous diseases of sheep; superseding and taking the place of all those poisonous and dangerous corrosive compounds and mixtures which are too common; and the fruitful cause of palsy, death, and inexpressible suffering to these innocent and helpless animals.

FEVER.—Sheep are as liable to attacks of fever as horned cattle, and for the same reasons. (See Fever, &c., under Class II., Cattle, in the present work.) In fever there will be a heaving of the flanks; a redness of the eye; dryness of the mouth, preceded by shivering; indisposition for food; and general dullness. If these symptoms are passed over with indifference, or unobserved, inflammatory fever will certainly ensue; and we shall have the more advanced and aggravated symptoms to combat. A dose of the Medicine should be administered on

the appearance of the first symptom, as a corrective and preventive; and the approaching disease is, in this way, frequently strangled in its birth. The dose may be repeated, if necessary. (See Fever, &c., under Class II. and III., in the present work; and Fever, Heat, Caloric, and Inflammatory Action, p. 27; Fever, pp. 80 and 43; and Inflammation, in what it consists, p. 28, in our work on Human Beings.)

INFLAMMATORY FEVER is similar to blood sticking or quarter ill (*Apoplexy in Cattle*). (See Apoplexy, or Bloody Sticking, Class III., in the present volume; and pp. 105 and 106, in our work on Human Beings.)

It is generally caused by a sudden removal from poor to luxuriant pasture. It is preceded by shivering, followed by a hot paroxysm; succeeded by languor and want of appetite; flanks heavy from the slightest exercise; animal becomes restless; eyes wild and bloodshot; lies down, with nose on the ground; and delirium ensues. This disease is sudden in its attack:—a sheep appearing well in the morning, will be found dead in the evening; and sometimes the animal will drop suddenly dead. It arises from repletion and inflammatory action, and over-distention of the blood-vessels—the consequent of superabundant and imprisoned caloric; and the system should be relieved on the appearance of the first symptom.

A dose of the Medicine should be administered immediately (see Table of Treatment), and the Injection or Enema should follow, if the symptoms do not moderate; and should be repeated if necessary. (Both will be administered by Reid's patent pump, see Table of Treatment.) As we have said in treating of Class I. and II., all will depend on promptitude of action in febrile or inflammatory cases; and the only difference with sheep is that we do not recommend the external application, with friction, so frequently, because of the sluggishness in this class, of the exhalants and inhalants of the skin. But there must not be a moment's unnecessary delay, if we mean to preserve life in this class.

TYPHUS FEVER or BRAXY.—Acute inflammation of the viscera, assuming the typhoid form. (See Typhus Fever, p. 45, in our work on Human Beings, and in the present work.) It may take the form of inflammation of the serous membrane of the abdomen; or the mucous membrane of the stomach and bowels, often destroying life within a few hours.

It is mostly prevalent in autumn, when sheep have recourse to dry, harsh, and indigestible aliment, and are exposed to cold, and wet, and bleak winds, and driving sleets.

Symptoms: Quick pulse; hurried breathing; mouth and skin hot; belly often swollen; and confined bowels.

Treatment must be prompt, or it will be useless. Administer the Medicine without loss of time; to be followed by the Injection or Enema. (See Table of Treatment.) The diet should consist of meal and water, or hay tea, with boiled hay.

WATER BRAXY; REDWATER, OR ACUTE DROPSY.—Acute inflammation of the serous membranes of the abdomen or chest; or both; with speedy effusion of redwater; terminating in death.

Lambs are most subject to this attack, generally in autumn or early winter; especially in bleak, damp localities; and when first placed in turnips; they are frequently perfectly well in the evening, and found dead in the morning.

Symptoms: It is not often so rapid in its course, however; and the preliminary symptoms are dulness, lagging behind its companions, and standing with its flanks tucked up, and its head stretched out, much pain and difficulty of breathing, swelling of the belly, and sometimes with severe purging; great uneasiness, getting up and lying down, and rolling on the ground; effusion ensues, and breathing soon ceases.

Treatment: The treatment must follow on the first symptom, or, in this disease, we can have no chance of success. The Medicine must be administered immediately, and the Injection or Enema must follow up without loss of time, and be repeated alternately till the symptoms moderate. When one sheep has died of this disorder, the flock should be narrowly watched and examined; so that the owner, if necessary, may save the flesh of his sheep, where necessary, by immediate slaughter. (See Dropsy of the Belly, or Ascites, p. 47, and Dropsy on the Chest, Hydrothorax, p. 47, in our work on Human Beings.)

COLIC.—This is rather a spasmodic than inflammatory disease, and may be often confounded with enteritis or inflammation of the bowels. (See Class I. and II. in the present work, and Inflammation in the Stomach and Bowels, p. 58, in our work on Human Beings.) It arises from feeding on rank or acrid herbage, and overfeeding.

Symptoms : The animal strikes at its belly with its hind feet, endures great pain, and moans piteously.

Treatment : Let the Medicine be administered immediately (see Table of Treatment), to be followed by the Injection or Enema, if necessary, (See Table of Treatment.)

INFLAMMATION OF THE BOWELS (*Enteritis*) arises from exposure to cold and wet, and improper food. This affection is inflammation of the peritoneal coat of the intestines, and if not relieved by prompt treatment, results in death.

Symptoms : Shivering; fever; obstinate constipation; violent pain; a quick and hard pulse; stamping, and striking of the sides with the hind feet; rolling on the ground, and scrambling up with a violent effort; the animal wastes away, and soon dies, suffering from congestion.

Treatment : Administer *immediately* a dose of the Medicine, to be followed by the Injection or Enema, if we intend to save life.

(See Class I. and II. in the present work; and Inflammation of the Stomach and Bowels, p. 58, in our work on Human Beings).

DIARRHŒA.—This disorder is caused by an effort of nature to get rid of some acrid or irritating matter; or from a relapsed state of the mucous lining membrane of the intestinal tube. It should never be neglected, because it will, almost certainly, determine in inflammatory action, and dysentery, (See Class I. and II. in the present work, and Diarrhœa, p. 76, in our work on Human Beings.)

It arises from exposure to cold and wet; from eating acrid or rank grass; and, in lambs, from the unhealthy state of the mother's milk. A dose or two of the Medicine administered to the ewe would medicate the milk and cure the lamb at the same time.

The flockmaster, or shepherd should watch attentively the first symptoms of purging; and if it should become immoderate, should not, on any account, delay the remedy.

Treatment : Change of food and shelter will be needful; but a dose of the Medicine should be administered immediately, and continued, as a constitutional dose, till the cure be effected. (See Table of Treatment.) If the griping pains be severe, the Injection or Enema should follow. (See Table of Treatment.) Sometimes a change to boiled cow's milk will prove a curative, in case of supervening disease in the nursing ewe; but the

certain cure is to administer the Medicine to the ewe directly. Great care must be taken, on recovery, to place ewe and lamb on a suitable pasture.

DYSENTERY arises from inflammation of the mucous membrane of the intestines, with a secretion of morbid mucus; and, in this, differs from diarrhoea.

Symptoms: This disease is not so sudden in the attack, and may result from neglected diarrhoea. It begins with purging; is accompanied by febrile symptoms; the appetite fails, but occasionally there is a morbid desire for food; defective digestion, enervation, discharge bloody—offensive matter intermixed with hard faeces—thin, slimy, and adhesive; abdomen, tender on pressure, and painful; hocks and thighs covered with evacuations; animal pines and wastes away; dies in a few days, but occasionally lives, wasting for weeks together.

Treatment: It is clear that the bowels must be immediately relieved of their offensive morbid contents. The Medicine, then, must now be administered at once, and the Injection and Enema must follow immediately, to completely disburden the system of all morbid matter, allay fever, and correct any septic tendency by its antiseptic and alterative action. The treatment must be continued till a cure be effected; and, meantime, the animal should have mash, gruel, and boiled, or very soft fine hay to feed on.

INFLAMMATION OF THE LIVER, OR THE ROT.—Here we have acute chronic inflammation of the liver, which is sometimes fatal in this stage, and, if neglected, lays the foundation for—

THE ROT.—This affection arises from eating too greedily of nutritious food; and we may detail the premonitory and consequent symptoms.

Symptoms: The animal is dull, with febrile symptoms; is unwilling to move; hangs its head; bowels confined; skin assumes a yellow tinge; eyes suffused with yellow; when pressed on the right side shrinks from pain; lame on the right fore leg; substance of the liver becomes thoroughly disorganized.

Treatment: Here we have acute inflammation, with morbid action, to deal with; and we must endeavour to arrest the first, and by this means the other.

The Medicine must be administered at once, to subdue the inflammation and correct any septic tendency, by its antiseptic action. The Injection must follow, to clear out the bowels, and

relieve the liver and connecting ducts of obstructing morbid matter as quickly as possible. These remedies must alternate, till relief be obtained. During the period of inflammatory action, the diet must be spare; dry food, short grass, and great care must be taken to avoid a relapse after apparent recovery.

The disease comes on insidiously; and on the sheep appearing dull—if this disease should threaten—if the skin of the brisket be examined, it will betray a yellow tint; so will the eye—intimating to the experienced, that the disease is being absorbed from the liver into the system. It may last from one to six months; and is most fatal in wet, boggy, and marshy districts. A postmortem examination shows thickening and adhesion of the bowels; enlargement and softening of the heart; tubercles on the lungs; a disorganization of the liver from inflammatory action, and the ravages of thousands of parasitical worms, called *flukes*, crowding its ducts in every direction.

Efficient superficial drainage is a very efficient remedy and preventive of this fatal scourge; and money could not be better expended on a sheep range. (See Inflammation of the Liver, p. 59, in our treatise on Human Beings.)

INFLAMMATION OF THE SPLEEN (*Splenitis*).—A spongy viscus lying on the left side of the abdomen, and connected with the rumen, or first stomach, by the mesenteric membrane throughout its whole extent. Inflammation of this viscus occurs frequently in sheep. Although it be difficult to trace the inflammatory action to its source by any definite symptom in this disorder, yet it will certainly be present; and therefore we must treat it as a febrile disease.

Treatment: We must administer the Medicine to arrest inflammation and its consequences, and repeat the dose morning and evening till inflammatory action disappears.

INFLAMMATION OF THE LUNGS (*Pneumonia*).—This is one of the most frequent and fatal diseases to which sheep are liable, arising from exposure to cold and inclement weather, and especially after being hunted by dogs, and after hard driving, under similar circumstances, to fairs, or to distant pastures.

Symptoms: Shivering, succeeded by fever; loss of appetite, and rumination arrested; hard and quick pulse; frequent and painful cough; heaving of the flanks; laboured breathing; fetid defluxions from the nostrils; grinding of the teeth; thirst; now

a wavering pulse ; cough weaker ; flanks heaving convulsively ; at length animal staggers in great suffering ; unconsciousness and death speedily follow.

Treatment : The inflammatory action must be immediately arrested by administering the Medicine, to aid in oxygenizing the blood, and to act as a febrifuge and refrigerant. It must be repeated at brief intervals, till the inflammatory action be subdued, and the normal temperature of the body restored. (See Table of Treatment.) The dietary must be spare, consisting of mashes, and soft fine grass, or hay ; and great care must be taken during convalescence. (See Class I. and II., and Pulmonary Consumption, p. 52, in our treatise on Human Beings.)

HOOZE, OR BRONCHITIS.—Inflammation of the lining membrane of the bronchial tubes, with a wheezing cough—very apt to attack lambs, when exposed to inclement weather, and on low, marshy, and unhealthy pastures.

Treatment : House the animal, and administer the Medicine at once (see Table of Treatment), and continue as a constitutional dose till the inflammatory action is subdued, and the cough ceases. A change to sound, sheltered, pasture, would be of great importance during convalescence.

INFLAMMATION OF THE LARYNX (*Laryngitis*) arises from inflammation of the lining membrane of the windpipe, with a ringing cough. It results from similar causes ; and is frequently, of course, epidemic in its character. The sheep appears to labour under a sense of suffocation ; arising from a thickening of the membrane, and the constriction, or closure, of the entrance to the windpipe.

Treatment : Let the Medicine be administered immediately, to reduce the inflammation and arrest the progress of the swelling ; and it must be continued until the animal can breathe freely, and a cure be effected. In severe and dangerous cases, the doses must succeed each other at intervals of one, two, or three hours, as the urgency of the symptoms dictate. The animal must be placed in a warm and sheltered spot, and mashes, and gruel, and boiled hay, supplied for feeding.

CONSUMPTION, OR PHTHISIS.—This is the result of chronic inflammation, resulting in the formation of tubercles, ultimately running into each other ; suppurating and forming abscesses : and by such means wasting away the lungs. (See

Pulmonary Consumption p. 52, in our treatise on Human Beings.)

Treatment: The moment that catarrh appears, administer a dose of the Medicine as the best curative and preventative of pustular development. If attention were paid by flockmasters and shepherds to the use of this easily-administered preventative, in proper time, serious loss, more especially on exposed situations, would be certainly avoided. (See Table of Treatment.)

The flockmaster should beware of breeding from suspected animals; for phthisis is almost certain to reproduce itself.

INFLAMMATION OF THE TONGUE (*Blain or Gloss Anthrax*).—This disease is infectious. It may arise from exposure to wet, cold, and unfriendly atmospheric influences, acting on a constitution suffering from debility, supplemented by improper or insufficient food.

Symptoms: Same as in Ox (see Class II. in the present work). Inflammatory action slowly developing itself; saliva drops from the mouth, at first liquid and devoid of smell, but eventually becoming purulent, bloody, and foetid; head and neck often swell to a frightful size; breathing difficult; vesicles appear along the side of the tongue and underneath it; they grow rapidly and burst, and are succeeded by deep sloughing ulcers, and abscesses break outwardly.

Treatment: This demands a constitutional remedy; and the remedy must be administered internally, as an alterative and antiseptic. But the mouth and tongue must be washed frequently with the Antiseptic Lotion, as a detergent, to cool and relieve the parts from the action of any virulent discharge, and clean out the wounds, act as a mild styptic, and aid in the restoration of healthy functional action in the tongue and surrounding parts. The Lotion will supplement the action of the Medicine in attaining these objects. It is usual to secure the animal, and lance every vesicle, to give vent to the glarey fluid at the outset. If this be done, the action of the Lotion would be, no doubt, the more effective. The animal must be put on generous diet—oatmeal gruel, bruised oats, &c., with a sufficiency of roots during the periods of treatment and convalescence.

But it should be distinctly understood, that whilst disclaiming any desire to dictate to flockmasters and shepherds, we deem it our duty to state distinctly and unreservedly, that if the Anti-

septic. Lotion is properly applied, it will be sufficient, of itself, to effect a cure, in conjunction with the internal action of the Medicine ; thus superseding any necessity for an operation.

THRUSH, OR APHTHE, IN THE MOUTH.—This disease commences with inflammation in the mouth, and results in the production of vesicles, somewhat like blain.

Symptoms : Animal dull and feverish ; inflammation in the mouth ; formation of vesicles ; ceases to feed ; restless ; saliva drops from mouth.

Treatment ; The mouth should be washed out thoroughly with the Antiseptic Lotion, which acts as an abstergent, antiseptic, and styptic ; purifying the parts, and aiding the Medicine in restoring normal functional action. (See Table of Treatment.) The Medicine must be administered immediately as a constitutional alterative and Antiseptic, to arrest septic and abnormal functional action—the only rational means of cure—and arrest the progress of the disease, sometimes causing vesicles to form about the nostrils and lips. The Medicine must be administered as a constitutional dose, every morning and evening till relief be obtained. By timely attention to this course of treatment, this affection is readily cured. But this disease has sometimes appeared as an epidemic, when it has proved exceedingly fatal.

STRANGLES.—This disease results in inflammation and supuration of the salivary glands. (See Class I. and II. in the present work.) It is more common in horses and cattle than in sheep. The moment febrile symptoms supervene, administer the Medicine immediately, and continue to do so as a constitutional dose, generally every morning and evening, till the natural temperature of the body be restored (see Table of Treatment), and suppuration ceases. The tumour, or swelling, which forms under the lower jaw is generally opened, to let the matter escape ; but if the Antiseptic Lotion be applied at the outset, with friction, it will, supplemented by the absorbent action of the Medicine, render any such operation unnecessary ; as the deposition of matter will be arrested and exhausted by the reciprocal action of the Medicine and Lotion from without and within ; and the formation of the abscess will be prevented—the tardy flow of matter being arrested, and speedily exhausted.

HOOVE, OR DISTENSION OF THE RUMEN WITH FOOD.—We have given full instructions in Class II. under this title.

Reid's stomach pump should be called into requisition immediately, and a full dose of the Antiseptic Medicine administered, to reduce the inflation caused by the hydrogen and carburetted hydrogen gases escaping from the rank food in the rumen. The chemical action of the Medicine (as we have clearly explained in treating on hoove in cattle in this volume) will speedily dispel the gaseous volume, and reduce the inflation, without having recourse to the common remedy of plunging a knife into the left flank, and inflicting a painful and unsightly wound.

OBSTRUCTION OF THE GULLET.—When a piece of turnip or carrot sticks in the gullet, causing an obstruction, use the œsophagean tube and stylet immediately; operate gently and cautiously, and you will easily remove the obstruction, without running the risk of rupturing or injuring the gullet. To make sure, employ both Medicine and Lotion. (See Table of Treatment.)

SPURIOUS FOOT ROT, OR INFLAMMATION OF THE INTERDIGITAL CANAL.—This disease involves the pastern and fetlock joints, causing the sheep to hobble on three legs after its food; or if it should affect both, to creep on its knees when feeding.

Treatment: The interdigital canal must be cleared out by means of a probe, and the Antiseptic Lotion be forced into the passage by means of a sharp-pointed syringe—purifying, cooling, and arresting septic action in the parts. The pastern and fetlock must be thoroughly rubbed and manipulated with the Lotion (see Table of Treatment), and if the treatment should not prove effectual immediately, administer a constitutional dose of the Medicine, to medicate the humours at the fountain head, and arrest inflammatory action, and prevent any abnormal deposit of unhealthy matter in the parts affected. This will arrest and prevent ulceration in the fetlock joint, and the burrowing of the purulent matter under the coronet, causing quittor, and loss of the hoof.

TRUE FOOT ROT is frequently caused by depasturing the sheep on soft and swampy pastures, whose natural habitat is the mountain side, where its hoofs are worn down and trimmed by treading on the rocks and dry and gravelly soils to be found in such localities. On luxuriant pastures, and rich and fertile soils, the hoof is not worn down as it grows; but is kept in a continual state of growth and maceration; when it becomes overgrown and cracks; becomes ragged, and the fissures are filled

with sand and dirt, which work up to the quick, causing acute inflammation, ulceration, and quittor.

Treatment: This disease, formidable though it appears from neglect, is by no means incurable. The superfluous horn must be pared away, and the parts washed thoroughly out with the Antiseptic Lotion; and if the case has been neglected, the parts must be swathed in the Antiseptic cloth, to arrest septic influences and inflammatory action, and the deposition of morbid matter. This treatment must be continued with regularity and perseverance, till a cure be effected.

But the medicine must be administered as a constitutional dose—at all events at the outset—and continued, until the symptoms so far moderate, as to justify its discontinuance.

By persevering with the medicine and topical dressing, foot rot will be by no means regarded as an incurable malady; but will yield to the curative influence of rational and timely treatment.

During treatment, the suffering animals should be housed, and removed from the flock, as the old shepherds believed that the treading after diseased animals communicated the disease. The removal to a warm and sheltered inclosure would be attended with advantage under all circumstances.

SCAB OR SHEEP MANGE.—We have treated of this foul disease under Classes I. and II. It is generated by starvation, dirt, wet, cold, and contagion, directly from the individual, or by resorting to infected gates, pailings, posts, pillars, and accustomed rubbing places. Infected animals should be immediately removed from the flock or herd, and treated apart, where they cannot injure their fellows.

Treatment: The skin should be examined; and if it appear rough, red, pustular, or ulcerated; and if the animal nibbles at its wool, trying to get it off, in its extreme torture, and ceases to feed, and becomes fevered from irritation and restless excitement—we shall have occasion to employ our most prompt and efficient remedies.

Animals, in countless thousands, have been destroyed by the ignorant or reckless employment of poisonous and corrosive compounds, in the form of dips, solutions, salves and ointments; and the owners of sheep cannot be too strongly cautioned against the use of such deleterious substances.

The infected animals, after removal from the flock, should be

at once shorn, well washed with the Antiseptic Lotion, and the wounds and irritated parts carefully dressed with the Antiseptic Salve No. 1. These articles are perfectly innocent, and may be employed with the utmost confidence; and will speedily effect a cure without, in any way, injuriously affecting the health of the animal. (See Table of Treatment).

For prevention and cure, the Antiseptic Sheep Dipping Solution may be employed (see Table of Treatment), which is as innocent as the Medicine and Salves—as *the Medicine which is taken internally*. When these are once used, and a fair trial given by flockmasters, it will be found that no other applications *in present use* can compete with them,—being pure and odourless; and they may be handled with open wounds on the skin of the operator; and the manipulation of these curatives will only serve to heal his wounds.

This disease is subcutaneous; and the Lotion and Salves should be *well rubbed into the skin* on every application. (See Table of Treatment.)

SHEEP TICK, OR SHEEP LOUSE.—This insect buries its head in the skin of the sheep, and fills itself with its secreted fluids. It is of a reddish colour, and swarms in lambs and young sheep in incredible numbers.

Treatment: If the animal's fleece be separated or parted in lines, and the Lotion laid in, and allowed to soak into the fleece, from parting to parting, this pest will be speedily got rid of. The operation must be repeated till the object be attained, or the Antiseptic Ointment may be laid along the partings, and wrought into the fleece, so that it may permeate it thoroughly; which will be an effectual cure. Or the animals may be plunged into the Antiseptic Dipping Solution—if preferred—which will be found equally efficient. We have already said we do not presume to dictate to flockmasters; but we have placed these means of cure in the order in which we appreciate them.

THE FLY.—About the middle of May, or beginning of June, a species of fly—especially in wooded localities,—attacks the sheep about the head, laying its eggs in the wound inflicted; unless it finds open sores elsewhere. In sheep afflicted with diarrhœa, and the fœces adhering to the wool, the eggs are deposited on these parts; and so soon as the maggots are hatched, they burrow under the skin, causing great torment.

Treatment: Let the parts—whether about the head or else-

where—be immediately and thoroughly washed out with the Antiseptic Lotion, and carefully dressed with the Antiseptic Salve; and this course persevered in till relief be obtained. (See Table of Treatment).

GARGET (*Inflammation of the Substance of the Udder*).—We have treated of this disease under Class II. in this volume. This arises from some constitutional tendency to inflammatory action, aided by cold and damp; and sometimes one and sometimes both teats are affected, becoming inflamed, swollen, and tender; and tumours form, confined to one part of the udder or distributed over it; and the whole will be hot and tumid, sympathising with the tenderness of the teats.

Treatment: The udder must be carefully bathed and washed over with the Antiseptic Lotion, and thereafter dressed with the Antiseptic Salve—to remove inflammatory action—to arrest the swelling—to cure irritability and tenderness, and dispel the latent and visible tumours in the part. The Medicine should be administered as a refrigerant and alterative—to allay inflammatory or septic action and medicate the secretions. A speedy cure, under such treatment, may be confidently anticipated.

VARIOLA OVIS (*Small Pox in Sheep*).—This disease may be communicated by infection, or inoculation, and should be strangled in its birth—on the appearance of the first suspicious symptom—like all inflammatory diseases—by the exhaustion of inflammatory and septic action—the rudimentary causes of this disorder. (See Variola (small pox), p. 27, in our treatise on Human Beings.)

Symptoms: In the case of mild Variola the animal will separate from its companions, creep into some obscure corner, look dejected, hanging its head listlessly; eyes swollen and tearful; hurried breathing, announcing fever; discharge of mucus from the nose; pulse 95 a minute. Next comes the appearance of the papillæ on the lips, cheeks, and the inner side of the arms and thighs; and they may be felt embedded in the true skin. They will first appear small, but may enlarge to the size of a shilling. In bad cases they will extend over the whole skin.

Now the papillæ reach their vesicular stage; become white and opaque, and finally—after three days—will suppurate; in three days more a scab forms, hardens, and becomes of a brownish yellow or black hue, and is cast off with the epidermis—leaving pits on the sites of the original papillæ.

THE CONFLUENT VARIOLA is a very fatal disease.

Symptoms: Acute fever of a typhoid type; pulse at first rapid,—sinking to feeble and tremulous; swollen eyelids; sanguineous congestion of the membrane of the nose; breath foetid; thirst intense; with extreme pain in back and limbs; wool falls off in patches, and becomes detached with a touch; fourth and ninth day red spots, with inflamed rings at the base appear on the lips, and cover parts of the fore and hind limbs; rise into confluent pustules, filled with putrid matter, degenerating into foul and malignant ulcers,—especially in warm weather; a yellowish foetid mucous runs from the nose; pustules form on the pituitous membrane; on the pharynx, and the lining membrane of the larynx; concretions form at the entrance to the nostrils, stopping the orifice and impeding respiration; the eyes are closed up with putrid humours, and blindness ensues; the lips slough away occasionally; the animal becomes lame; convulsions and diarrhoea follow, and death supervenes.

Now we draw this horrifying picture—(and in those who could so easily prevent it, it is nothing better than cruelty to animals)—for the purpose of rousing the indignation of all true-hearted men against owners and tenders who fail to arrest such a fearful scourge on its first appearance—warned by the first suspicious symptom. If the Antiseptic-Antiphlogistic Treatment were resorted to, as it ought to be, on the very first appearance of inflammatory symptoms in man or beast, incalculable suffering would be spared the human race, as well as the helpless races of domestic animals. If the Antiseptic Medicine were at once administered, on the appearance of the first symptom of inflammation, any inflammatory and consequent septic action would be arrested and exhausted at the fountain head, and that at the very outset; sparing man and beast all the consequent suffering, resulting from variola, and countless diseases generated by inflammatory and, it may be, associate septic action. Gout, rheumatism, visceral inflammation; cellular and membranous inflammation; inflammation of the substance of the viscera;—in fact, disease in general, would be strangled in the birth, or the consequent suffering abridged in duration, and so mitigated as to leave no permanent trace or taint behind. The use of the Medicine should be continued until the last trace of inflammatory action

disappears; and great care must be taken in supplying suitable feeding, in a well-ventilated house, and a dry healthy pasture during convalescence.

We have stated distinctly and unreservedly in our remarks under the title of Variola, in our Treatise on Human Beings, that the Antiseptic Theory and Practice is based on the certainty that, after the system has been subjected to Antiseptic Treatment, in any stage of disease, the inflammatory and septic action will be both arrested simultaneously, and can progress no further—the refrigerant alterative and Antiseptic action of the Medicine modicating the blood and circulating fluids—thus extinguishing disease at the fountain head; and correcting the secretions from which every organized particle in the human frame is derived. If this can be accomplished by the action of our Medicine—and who will doubt it, after perusing the article on milk and flesh products (See under Class II., article on Milk and Flesh Products, and the reciprocal action of the Medicine and Lotion in this volume); then surely the comforting reflection remains, that time and money have been well spent in making and utilizing this discovery.

HYDATIDS IN THE BRAIN.—This disease is most prevalent in damp, low, boggy districts, and in a cold wet spring—the earth saturated with drenching, chilling rains. Then the weaker lambs show signs of debility, and their number too often increases daily and lamentably. They are said to be labouring under sturdy, turnsick, giddy, goggles, dunt, &c. The true cause of the supervening symptoms is a latent parasite, which has adopted as its *nidus* the surface, or interior of the brain; and this parasite is known under the name of Hydatid.

Symptoms: Dejection and dullness; lamb gives up its gambols, forsakes its companions, mopes alone, often staggers; stands gazing with a stupid stare, then flies off, as if in terror; stops and stares vacantly as before, reels giddily, and falls over—sometimes into a ditch or streamlet—and often perishes before it is detected and relieved. Finally the fits become more frequent, the neck twists to one side, and it commences a rotatory motion; and in endeavouring to feed, it goes round and round, endeavouring to gather herbage; blindness comes on; it falls and rises up, stands in a stupor, becomes emaciated, and finally topples into a brook or over a precipice and perishes.

Treatment: The antiseptic treatment of this disease proceeds

on the principle of absorption, and the restoration and regulation of healthy and normal functional action throughout the system. The Antiseptic Medicine is the mortal enemy and destroyer of all abnormal growths and existences within the organism ; and the Hydatid is no exception.

With this view the Antiseptic Medicine must be administered as a constitutional alterative and absorbent, to induce the restoration of healthy, or normal functional action, regulate the secretions, stop the generation and deposit of what is abnormal, unhealthy, or exceptional amongst them, and thus starve out the Hydatid by robbing it of its *pabulum*.

The Medicine must be administered, then, as a constitutional alterative and absorbent (See Table of Treatment) until relief be obtained, and the symptoms indicative of the vitality of the hydatid, and its consequent increasing pressure on the brain, from its progressive enlargement, have given place to opposite indications ; marking the withdrawal of cerebral pressure by the wasting away and collapsing of the hydatid, by the process of exhaustion, or starvation—favoured by the inherent action of the Antiseptic Medicine.

The Lotion may be usefully applied, as a topical remedy, in the following manner :—Part and separate the wool at the back of the head, and over the nape of the neck ; and lay the Lotion well into the exposed skin, along the line of separation, and apply persistent friction,—going round, parting after parting, from ear to ear ; making three partings from the back of the head over the nape, and along the neck. The object is, by this operation to aid the internal absorbent action of the Medicine, by employing a similar action from without ; the internal and external actions reciprocating in the attainment of a common end. In the Antiseptic Practice, we do not recognise the necessity for the performance of any operation to destroy the hydatid cyst by puncture, or trephine ; we trust to the absorbent action of the Medicine, and its inherent power in inducing and restoring normal functional action locally, and throughout the organism. (See Hydatids and Tumours of the Brain, Class II., in this volume).

HYDROCEPHALUS, OR WATER IN THE HEAD.—This disease arises from the accumulation of serous fluid on the surface of the brain, or within the brain, occupying the ventricles. The

symptoms are more severe than in sturdy from hydatid, and more rapid in its course.

It is usually attended with some paralytic symptom, either in the fore or hind quarters ; and, as in hydatids, the head is turned to one side. The head is enlarged ; the bones softened ; the sutures opened ; and it is sometimes congenital. Sometimes, however, it comes on very gradually ; the lamb appears dull ; staggers as it walks ; bowels constipated—sometimes violently relaxed ; appetite varied—occasionally insatiable, and at other times lost ; becomes emaciated, and pines away ; skull enlarges ; vital energy becomes exhausted ; and the sufferer gradually sinks. It is frequently attended by the presence of hydatid.

Treatment : We cannot do better than counsel promptitude of action ; and refer the stockmaster and shepherd to the course of treatment recommended under Hydatid on the Brain in the present volume.

APOPLEXY, OR BLOOD STICKING.—This disease arises from a sudden and violent rush of blood to the head, and engorgement and congestion in the brain ; producing undue pressure, and frequently resulting in instant death.

Prize stock are very subject to this disorder, and require to be narrowly watched.

Symptoms : Sometimes we have premonitory symptoms, enabling us to anticipate eventualities, and probably save life.

A sheep stands motionless, and staggers ; with eyes fixed, and dilated pupils ; nostrils dilated, and the lining fiery red ; heaving flanks ; stertorous breathing ; finally the animal reels, falls, and dies.

Treatment : The usual remedy is bleeding ; but the pressure on the brain may be relieved, and the equilibrium restored by other means ; *without materially reducing the condition of the animal.*

On perceiving the very first suspicious symptom, let the Antiseptic Injection be thrown up to divert the blood downwards to the intestinal region ; and the Medicine should be thrown into the stomach by the pump for the like purpose. If the action of a powerful stimulant, timeously applied in this manner, can divert the flow of the blood, in a sufficient measure, downwards, it is plain, the pressure on the brain—at once the original cause, and the cause of the subsistence and endurance of the disease—will be removed ; and the symptoms of disordered

natural functional action and healthy circulation in the rejoined circulation, and the pressure on the brain, must be removed at same time. These steps must be repeated till permanent relief be obtained. *If relief be obtained by such simple and natural means, the condition of the animal will not materially suffer.* (See Apoplexy, p. 105 and 106, in our Treatise on Human Beings.

INFLAMMATION OF THE BRAIN (*Phrenitis*).—This is inflammation of the substance of the brain, or of its membranes, and produced by the same causes as apoplexy.

Symptoms: Dullness; heaviness; loss of appetite; eyes blood-shot and staring; finally animal becomes wild; gallops frantically about; rushes to attack any person, or thing, that attracts its notice; and delirium ensues; when it dashes itself to the ground; and, amidst throes and convulsions, staggers, falls, and dies. We can do no better than advise prompt action: and refer back to the instructions to be found under the head of apoplexy in the present volume. (See Inflammation of the Brain, p. 57, in our treatise on Human Beings.)

TETANUS, OR LOCKED JAW.—This disease is produced by cold and sleety rains, and inclement weather—more especially at lambing time. Young lambs are especially subject to it; and the male lambs after the operation of castration, when roughly performed.

The affection arises from a spasmodic contraction of the muscles generally; but of the jaws and their connections more particularly.

Symptoms: Spasmodic twitchings of the head and limbs; grinding of the teeth; rigidity of the jaws; a stiffening of the frame; protruding neck; head bent backwards; fits and spasms alternating—such are the premonitory symptoms.

Treatment: On the first suspicious symptom appearing, administer a dose of the Medicine—repeating it every half-hour till spasm relapses;—but from the first apply the Lotion externally to the nape of the neck, as recommended under hydatids in the brain in the present volume; extending the application of the Lotion with friction, in like manner—all round the junction of the head and neck, and over and under the jaws, to aid the internal action of the Medicine in relaxing the spasm. This course of treatment must be persevered in till relief be obtained. A sound sheltered pasture should be provided, after treatment has ceased, and during convalescence.

(See Tetanus or Locked Jaw, Class IV., in the present volume.)

EPILEPSY, a disturbance in the nervous functional action ; producing epileptic fits.

Symptoms : On rising from its bed in the morning, the animal is observed to stare wildly, or vacantly, and stagger ; then falls, and staggers convulsively for several minutes, till the fit gradually subsides, and the animal temporarily recovers.

Treatment : We cannot do better than recommend watchfulness ; and the administering of the Medicine as a constitutional dose, to restore and maintain healthy, normal, constitutional action throughout the organism.

While the patient is labouring under the fit, the persevering application of the Lotion with friction to the nape of the neck (as recommended under Hydatids and Tetanus in the present volume) will be attended with the best consequences, and will hasten a recovery. Change of pasture and adequate shelter should not be neglected, after the course of treatment has ceased and during convalescence. (See Class I. and II., and Epilepsy, pp. 105 and 112 in my treatise on Human Beings.)

PALSY, OR PARALYSIS.—A complete suspension of the nervous influence on the muscles of voluntary motion. It may extend to one muscle—to the limbs—or the whole body.

Treatment : If a cure cannot be effected, relief may at least be afforded. Remove patient to a comfortable shelter, with a clean, dry bed of straw or hay, and administer a dose of the Medicine at once (see Table of Treatment), to aid in renewing normal functional action in the motor nerves.

To aid the internal action of the Medicine, and stimulate the parts, the wool may be parted in lines over the parts affected, and the Lotion applied as under Hydatids, Tetanus, and Epilepsy in the present volume. (See Class I. and II., and Hemiplegia and Paraplegia, pp. 110 and 111 in our treatise on Human Beings.)

FRACTURES, STRAINS, WOUNDS, AND BRUISES.—In all such cases the application of the Antiseptic Lotion and Salves—according to the necessities of each case—will be found the very best curatives which can be employed on every occasion ; cleansing out and deodorising wounds ; inducing healthy union of the parts in fracture ; preventing and arresting inflammatory action at same time ; restoring healthy tension in strains ; and acting as powerful deobstruents and discutients in bruises ; restoring

parts throughout. (See Wounds, Sprains, Burns, pp. 81 and 83, in our work on Human Beings.)

PREGNANCY, GESTATION, AND THE MANAGEMENT OF LAMBS.

The period of gestation in the ewe is five months; and the number of lambs produced from one to three, and twins are common. The ewe is fit for breeding at fifteen or sixteen months, but the ram must be two years old. During this period the ewes must be watched with care; and the Medicine administered to correct any irregularity. As yearning approaches, the flockmasters must be careful, though preserving the ewe in condition, not to place her on too rich pasturage—as this might induce inflammatory disease, and, perhaps, garget. We must be watchful, in the yearning stage, in like manner; and, on the appearance of any suspicious symptom, administer the Medicine internally; and if the udder should show signs of inflammation, it must be immediately bathed with the Lotion, and dressed with the Antiseptic Salve No. 3, proceeding to No. 1 if necessary. After the ewes are removed to a sheltered spot, near home, for safety and convenience, the matted wool should be shorn off about the tail, and inside the thighs, and around the udder, to promote health and cleanliness, before yearning; and if any suspicious symptoms show, a constitutional dose of the Medicine should be given at once; for, under such circumstances, delays are dangerous.

In April, or the beginning of May, the lambs are dropped; and about a fortnight after birth, or earlier, they begin to nibble the grass; and we must take care that the pasture is not too luxuriant; or we may expect dysentery of a dangerous type; and the lamb may die in twelve or fourteen hours, or may pine in torture for two or three days together. All this may be avoided by attention to using the constitutional Medicine in proper time.

One or two males, or a number in proportion to the stock, are reserved for breeding, and the remainder become wedders. Care must be taken in performing the operation of castration; and a dose of the Medicine should be given both before and after the operation to prepare them for it, and prevent the chance of consequent inflammation. We have recommended this precaution in all surgical operations in our work on Human Beings. This operation should be performed when they are two or three days, rather than fourteen or twenty-one days,

old, and during cool and temperate weather, if possible. Of docking and spaying we would remark in the same terms, and recommend the same precautions. Lambs should not be weaned at once, but it should be a gradual process; and this depends upon the state of the pasturage, and the intentions of the flockmaster. The average time is four months old; but if the pasturage be rich, and the lambs are to be sold in store condition, they may remain with their dams till six months old. The constitutional Medicine will be found to be a good and trusty friend during the process of weaning; and whilst the stomach is undergoing the process of development, and whilst the functional changes are progressing, which are necessary to prepare it for the digestion of vegetable aliment. In this stage we may encounter inflammatory fever and dysentery; but the timely use of the Antiseptic Medicine will enable the flock-master to tide over every difficulty and danger. In order to be thoroughly impressed with the great importance of the habitual and constitutional use of this invaluable Remedy, in every circumstance of difficulty and danger, we refer the flock master and shepherd to the article in the present volume, on Milk and Flesh production, under Class II.; and the reciprocal action of the Medicine and Lotion.

CLASS IV.

THE PIG.

Without preface we shall proceed to treat, shortly, of the diseases of swine ; our only preliminary remark being that it will require the efforts of several powerful men to secure a well-sized hog, and to administer Medicine ; and that the best way will be to endeavour to cheat the animal by administering the dose with his food. We shall also protest against crowded and filthy sties, irregularity of feeding, and insufficiency of water.

FEVER.—The usual symptoms supervene ; as—dulness ; dryness of the nose and skin ; redness of the eyes ; heat of the ears and over the body ; thirst and loss of appetite ; pulse hard and quick.

Treatment : The pig is a bad subject for disease, and sink rapidly under any acute attack ; so that no time must be lost in employing the means of cure. The Medicine must be administered on the appearance of the first symptom, as a refrigerent alterative and Antiseptic (see Table of Treatment) to arrest inflammatory and septic symptoms at the very outset. If given in time, and continued at intervals—shorter or longer, guided by the urgency of the symptoms—the febrile symptoms will die off and disappear, and the animal will soon recover, without loss of condition. If the symptoms should prove obstinate, continue the Medicine, and throw up the Injection (see Table of Treatment) to clear out the intestinal tube and its connections ; to relieve any pressure on the circulatory system ; and to supplement the internal action of the Medicine in subduing the febrile symptoms, and in restoring the natural temperature of the body. The disease will quickly disappear if treated in time ; and, after the employment of the Antiseptic treatment at any stage, the disease will be arrested ; and inflammatory

and septic action can proceed no farther. In all inflammatory affections—of whatever description—the treatment we have recommended should be unfailingly pursued; and if ulceration or gangrenous spots, rawness, or scurfiness, should show on any part, the application of the Antiseptic Lotion as a cooling detergent wash and deodoriser; and the dressing with the Antiseptic Salves will prove both speedy and certain in their operation, and perfect a cure.

(See Fever, &c., &c., under Classes I., II., and III., in the present volume; and Fever, Heat, Caloric, and Inflammatory Action, p. 27; Fever, pp. 30 and 43; and Inflammation, in What it Consists, p. 28, in our work on Human Beings.)

INFLAMMATION OF THE BRAIN (*Phrenitis*).—Inflammation of the substance of the brain, caused by a sudden change from poor to nutritious feeding.

Symptoms: See Fever, in this volume.

Treatment: See Fever, as above.

APOPLEXY is generally speedy in its course. It is usually preceded by dulness; glaring and bloodshot eye; dimness of sight, and staggering.

Treatment: (See Fever and Inflammation of the Brain), and references under Fever: also Apoplexy, in the present volume; and Apoplexy, pp. 105 and 106 in our work on Human Beings.

EPILEPSY.—Attacks without perceptible warning; though occasionally the animal is more restless than usual for some days previously.

The habitual or constitutional use of the Antiseptic Medicine, the precaution of administering a dose the moment unusual restlessness is displayed, and especially when the approach of a fit is apprehended (whether warned by former experience of the animal's constitution, or dread of congenital disease) will often anticipate and prevent much trouble, and possible danger. The flesh will always be improved in flavour and quality by the constitutional use of the Antiseptic Medicine. During the continuance of the fit, the Lotion may be rubbed in with a hair glove, or flesh-brush over the nape of the neck, to arouse the animal from his torpor, and restore animation and motion. (See Epilepsy, under Class III., in the present volume; and Epilepsy, pp. 105 and 112, in our treatise on Human Beings).

INFLAMMATION OF THE PITUITOUS MEMBRANE OF THE NOSE (*Nasal Catarrh*).—This is marked by a defluxion from the

nose ; dulness ; the inflammation extending to the pharynx, gullet, and larynx ; with cough, difficulty in swallowing, and hanging of the head ; distorted snout, from swelling of the membrane ; mucus mixed with blood, and the animal sinks. The disease is caused by cold and dirt, and resembles glanders.

Treatment : Proceed at once, on the first symptom, or at any stage of the disease, to administer a dose of the Medicine ; to be continued, as a constitutional remedy, every morning and evening, and oftener, if the symptoms be urgent—until the disease be arrested, and the symptoms manifestly moderate. Thereafter it may be given at longer intervals.

If the animal can be mastered, the Antiseptic Lotion should be freely applied with friction over the whole head, especially from the frontal bone downwards to the extremities of the nostrils. (See Glanders, Class I. and Class II., and Inflammation of the Larynx (*Laryngitis*), Class III., in the present volume ; and Pulmonary Consumption, p. 52, in my treatise on Human Beings.)

INFLAMMATION OF THE GLANDS OF THE THROAT, or STRANGLES, results in inflammation and suppuration of the salivary glands. (See Classes I., II., and III. in the present volume, under title Strangles.)

Symptoms : See as above.

Treatment : See as above.

INFLAMMATION OF THE LUNGS (*Pneumonitis*).—Pigs, like other animals, are subject to this disease, especially in damp and ill-ventilated piggeries.

Symptoms : See under Class III. in this volume.

Treatment : See under Class III. ; also Pulmonary Consumption, p. 52, in my treatise on Human Beings.

INFLAMMATION OF THE BRONCHIAL TUBES (*Bronchitis*).—Oxen, calves, and sheep are subject to this affection as well as pigs. (See under Bronchitis, or Hooze, Classes II. and III. in the present volume.)

Symptoms : See under Hooze, or Bronchitis, Class III. present volume.

Treatment : See under Class III.

INFLAMMATION OF THE BOWELS (*Enteritis*).—This is inflammation of the peritoneal coat of the intestines ; and if not relieved immediately will result in death. It arises from

exposure to cold and wet; and filthy sties and bad food will supplement these causes and aggravate the disease.

Symptoms: Fever; restlessness; laborious breathing; constipation and swollen abdomen; leans on his breast and fore legs, to save pressure on the belly—indicating the presence of pain there.

Treatment: See Inflammation of the Bowels—Enteritis—in the present volume; also see Classes I., II. in the present work; and Inflammation of the Stomach and Bowels, p. 58, in our work on Human Beings.

INFLAMMATION OF THE PERITONÆUM (*Peritonitis*).—The inflammation takes place in the peritoneal covering of the viscera, and the symptoms are similar to those which inflammation of the viscera produce.

Symptoms: Tenderness in the abdomen, when pressed upon; fever, and general disturbance of the system.

This disease is sharp, short, and sudden. Enteritis is slower in its progress. We have only to exercise the greater promptitude.

Treatment: (See Enteritis in the present volume), and lose not a moment; also (see Classes I. and II. in the present work; and Inflammation of the Stomach and Bowels, p. 58, in our work on Human Beings).

INFLAMMATION OF THE LIVER (*Hepatitis*).—Here we have acute chronic inflammation of the liver, and morbid action to deal with.

Symptoms: General symptoms uniform in all animals. See Inflammation of the Liver, under Class III.

Treatment: See Inflammation of Liver, Class III., wherever applicable. Also, under Classes I. and II., and Inflammation of the Liver, p. 59, in our Treatise on Human Beings.

INFLAMMATION OF THE SPLEEN (*Splenitis*).—Congestion and rupture of this viscera have taken place; and absorption and wasting away are not uncommon.

Symptoms: Resembles enteritis and peritonitis. See Inflammation of the Spleen (*splenitis*) elsewhere in the present volume.

Treatment: See as above.

COLIC.—This arises from overfeeding and improper diet.

Symptoms: The diseased animals cry out piteously, and run

about the sty ; roll on the ground, in evident pain ; but without fever at the outset.

Treatment : Let the Medicine be administered immediately, to expel the carburetted hydrogen gas, and medicate the contents of the intestines, and relieve the intestinal tube, and its connexions, of its irritating contents. To aid in attaining this object, let an Injection be thrown up, if necessary, so as to remove any acrid latent fluid, or hardened fœces, which may irritate, inconveniently, and distend the mucous coat, causing intense pain and irritation in their passage downwards. Give the animal, afterwards, plenty of tepid gruel, to lubricate the internal coats of the intestinal canal, and its connections. (See Colic, or Belly-ache, p. 77, in our work on Human Beings.

DIARRHŒA.—This is also caused by inhabiting cold and damp sties ; over-feeding, or unwholesome food. It is very common amongst young pigs, and should not be neglected.

Treatment : Medicine and Injection or Enema (see Diarrhœa, Class II., in the present volume. See also Classes II. and III. in the present work ; and Inflammation of the Stomach and Bowels, p. 58, in our work on Human Beings.)

TETANUS : This affection is caused by the unskilful and brutal performance of many operators giving unnecessary torture. Over-driving in bad weather, succeeded by a chill, have been known to induce it.

Symptoms : The disease commences by spasmodic twitchings about the jaws, and spasmodic motions of the head and fore legs ; then the clenched teeth are set, and the neck and shoulders become rigid.

Treatment : The application of the Lotion with sharp friction with the flesh brush should be applied immediately and persistently ; and the friction should be continued perseveringly along the neck, spine, and round the jaws, to relax the spasm, and thus relieve the animal. The Injection should be thrown up with the same view, to endeavour, by applying a sudden and powerful stimulus to the intestinal region, to procure the relaxation of the spasm of the muscles of the neck and jaws. (See Tetanus or Locked Jaw, Class III., in the present volume.

LEPROSY.—This disease has been known to afflict the hog from the earliest ages. It arises from a depraved state of the blood

and circulating fluids. It is understood to be caused from noxious gases and pestilential vapours ; and damp and uncomfortable sties, and unwholesome food and water. These poisonous influences generate a crop of small vesicles in every part of the cellular tissue ; in the fat, and between the muscles, especially of the ham and shoulders, the neck and jaws ; underneath and around the root of the tongue ; and they appear in the intestines.

Symptoms : The approach and progress of leprosy is insidious. The animal at first appears dull, languid, and without fever ; and neither the breathing nor appetite is much affected. Presently the skin becomes thickened ; the bristles lose their stiffness and firmness of adhesion ; the vesicles in the subjacent tissue increase in number ; the hair falls off ; and the skin ulcerates. Finally, the vesicles abound in every part ; the animal drags himself along feebly ; totters ; loses appetite ; the inside of the lips become pale, and vesicles appear below the tongue, and violet spots inside the mouth ; eyes dull ; pulse feeble ; bristles fall off ; skin ulcerates in patches ; large tumours are developed ; the body and breath exhales a disgusting odour ; the posterior quarters become paralysed ; the animal moans, and dies a mass of corruption.

Treatment : Here we have to combat the effects of poisonous vapour—by inhalation, permeating the blood volume and tissues, and finally corrupting the whole frame.

The animal must be removed, if convenient, into a healthier situation, and placed under treatment. Let the Medicine be administered on the appearance of the first symptom, to arrest septic action and strangle the disease in its birth. With this view the Medicine must be administered as a constitutional remedy, and continued morning and evening till all trace of disease has vanished. But if any thickening of the skin should threaten, or vesicles appear, apply the Antiseptic Lotion immediately as a topical remedy, with friction, using the flesh brush ; and continue the use of both Medicine and Lotion, with careful feeding, until every symptom shall have yielded to the inherent power of the Antiseptic Remedy. Be careful during convalescence ; and do not discontinue the treatment too early.

MANGE.—This is a pustular cutaneous affection, arising from the burrowing under the skin of a minute insect (*Acarus*). It

is often attended or followed by the appearance of lice. (See under Classes I. and II., and Scab or Mange under Class III. in the present volume; also the Itch (*Scabies*), p. 86, in our treatise on Human Beings.)

On the first sensation of irritation and restless excitement let the skin be bathed copiously with the Antiseptic Lotion; and wherever redness or incipient pustule appears, dress carefully with the Salve, rubbing it into the part. Take the Medicine as a constitutional dose, to medicate the humours and exhaust any insidious permeating virus at the outset. But this mode of treatment will be equally effectual at any stage; only that, though the disease will be at once arrested, it will take some time to purge it out of the constitution and purify the system thoroughly.

MEASLES.—This may be regarded as an epidemic, though it is viewed by some as a milder kind of leprosy.

Symptoms: It is a subcutaneous affection, developing an abundance of small watery pustules, generated beneath the skin, and pervading the cellular tissue. They appear in raised patches on the more tender parts—inside the thighs, flanks, and upper part of the forearm—ultimately pervading, more or less, the whole surface. Fever, sickness, loss of appetite, mucous discharge from the nostrils, frequent cough, swelling of the eyelids, dark pustules under the tongue, and a final desquamation of the skin are the distinguishing symptoms.

Treatment: The Medicine should be administered on the appearance of the first suspicious symptom, to arrest fever and kill it out, and anticipate and prevent the approach of more aggravated symptoms. A dose or two of the Medicine, administered in time, will be effectual for this purpose. But if the Antiseptic Treatment should have been delayed through neglect or ignorance till a later stage—if administered at short intervals it will at once check and arrest the progress of the disease; and the persevering use of the Medicine will purge the last trace of the disease out of the constitution, and purify the system thoroughly. (See Index; and Measles, p. 27, in our Treatise on Human Beings.)

PREGNANCY AND GESTATION.—The animal should be kept in fair condition; but beware of surfeit. If any suspicious symptom supervene, at once administer a dose of the Medicine as a safe preventive and curative. Let a commodious, clean,

and well littered sty be provided according to the owner's convenience. As the period of parturition approaches, the animal should be watched, without disturbance. Abortion is rare in a sow, unless from ill-treatment; and if nature have free course, all will go well. If any suspicious symptom should appear, the owner cannot do better than to administer the dose as a constitutional remedy (see Table of Treatment), as it will not only improve the condition of the sow, but medicate the milk, and induce and establish a healthy habit in the progeny.

CLASS V.

THE DOG.

To whatever extremes of heat or cold a country may be subjected—wherever man can exist, there we find, in some shape or form, the representative of the canine race, serving as the playmate and guardian of the infant, the favourite and companion of the mother, the trusty associate of the aged, and the fearless protector of every home. Yet there is no animal more misunderstood or abused—whether subjected to cruel privations, or diseased and corrupted by the consequences of over-indulgence. There is no animal in which disease assumes a more virulent form. Canine pathology has been comparatively little studied; innumerable audacious pretenders—audacious let us, in charity, hope, because of their ignorance—who wander about with recipes and specifics, being often totally ignorant of their nature and composition. Nevertheless, they advise and prescribe with the utmost confidence, representing their nostrums as of inestimable value; and hesitate not to subject the unfortunate animals to the unforeseen results of their haphazard practice; and force their fail-me-never potions and boluses down the throats of the struggling helpless animals, utterly regardless of the issue—evidently elated with such a recent exhibition of their prowess in vanquishing the feeble efforts of the wretched creatures they have succeeded in torturing into involuntary obedience.

No doubt some of these pretended cures are composed of simples, and are harmless; but this is not true of all; for many of them are attended with the greatest danger; and if life itself be not sacrificed, months of care will not suffice to efface the injury inflicted. No amateur, or tyro need attempt to prescribe for the dog:—it takes years of progressive experience, and a thorough acquaintance with anatomy, physiology, and therapeutics, applied to the diseases of the animal, to entitle any adviser to prescribe with freedom and confidence.

In the dog, the nervous system is largely developed ; and, exciting such a controlling influence over all its actions, individualises the character of the canine class. Even during sleep, the twitching of the limbs and the inarticulate sounds, so frequently uttered, betray the fact that the brain is busy—that the animal is occupied with dreamy reminiscences of the past, or a consciousness of the agreeable or unpleasant impressions of the present. He dreams—and is conscious at the moment of pleasure or of pain. It is well known that the dog is more liable to diseases of a spinal or cerebral type than any other animal. Firmness and gentleness are the necessary requirements in the management and training of the dog : hesitation and indecision will inflict torture on the animal, and will certainly render him both unserviceable and worthless. Under proper training, dogs are intelligent and honourable creatures ; and no trainer need doubt the presence of these latent capabilities :—they only need fostering and development.

A dog must be won by mingled kindness and firmness ; the trainer must evince decision of character and confidence ; and he will everafter retain the natural ascendancy ; and the animal will be both attached and submissive.

It is a mistake to suppose that a feed of corn to a horse, or a meal of flesh to a dog, just before starting, imparts strength for immediate labour. The invigorating of the animal frame is the result of a slow and intricate process ; and the food that is given before starting is of little value in this respect—it depends on what has been allowed to the animal for some time before. It is proper to remark that warm food enfeebles the digestive powers of a dog, and deranges the stomach ; and they should never be allowed to touch food which is not perfectly cold.

Exercise is as necessary as food, to keep a dog in health ; and, when tied up with chain and collar, exercise should never be neglected.

Washing is not so necessary as many imagine, and may be overdone. The coat is deprived of the unctuous secretion proceeding from the subcutaneous layer ; and the cuticle grows weak and dry ;—the hair more easily catches dirt as it roughens, and loses its sleek and glossy appearance. This may be removed, however, by smearing the coat with pouring on a little water and the yolk of an egg, and lathering the whole body plentifully—clearing the whole off with copious ablutions. The animal

should instantly be started on a scamper, and never allowed to remain quiescent till every trace of moisture has disappeared from the skin and coat. In all skin diseases, copious bathing with the Antiseptic Lotion should be resorted to ; which will relieve the animal on all occasions—leaving the skin entirely free of heat and inflammation.

Dogs are often ignorantly destroyed when covered with vermin, because their owners are ignorant of the process by which they may *so easily* get rid of the annoyance. The Antiseptic Lotion, after a few applications, will *certainly* relieve the suffering animals from their torments—thus sparing them for future usefulness.

It is not so easy to administer medicine to a dog as the uninitiated imagine. The best plan is to win the confidence of the animal, and administer the dose by stratagem.

But a small dog is often taken up in the lap—an assistant kneeling beside the chair, gently and firmly holding the dog's claws. The left hand must grasp the skull, and the thumb and forefinger being pressed against the cheeks on either side, so as to force them between the posterior molar teeth, the jaws are prevented from being closed by the pain which every attempt to shut them produces. The pill, capsule, or bolus should be at once placed as far as possible down, and pushed with the finger of the right hand still farther down the throat. The parts are yielding, and will present no obstruction. On the withdrawal of the finger the jaws ought to be clapped together, and the attention of the animal diverted ; when, if the tongue be protruded to lick the nose and lips, we may conclude that the pill, capsule, or bolus has been swallowed.

But with larger and more formidable animals we must adopt very different methods, and first and best we may employ stratagem. We must enclose the measured dose of Antiseptic Medicine in a gum capsule, and this at the moment before using it. Sow up this capsule in a piece of split raw meat, after being filled with the Medicine, and the open end held to the fire to render it plastic, and the lips pressed together and secured by the pressure of the finger and thumb :—thus prepared, make a feint to throw it at the dog two or three times to excite him, showing him the colour of the meat at same time ; then fling it to him ; and as a dog always bolts ordinary-sized morsels, he will swallow it down at once unsuspectingly.

The Antiseptic Medicine is perfectly odourless ; and taste it he cannot ; so it goes down at once ; and you may repeat this as often as you please with any dog—great or small—gentle or vicious.

But if you desire to administer fluid medicine, *in volume*, you must gently raise the animal's head ; draw the corner of his mouth aside (after having previously *loosely* muzzled him, or not, depending on the temper and submissiveness of the animal) ; you will thus form a kind of funnel : and into this let a quantity of the fluid medicine, equal to its capacity, be poured. You will then gently close the jaws by pressure with one hand—the animal being loosely muzzled—and the portion will be swallowed with ease. You may repeat this operation, again and again, till the whole dose be taken.

But in case of incorrigible animals—and especially those of great size—who cannot be conquered by any stratagem, they must, first of all, be muzzled ; and led with collar and chain to the place of action. In large kennels this method will be especially applicable. An upright bar of iron, perforated with holes, large enough to admit the passage of a thick cord double—the holes about an inch, or an inch and a half distant—must be firmly screwed to a platform of thick planking, three feet square. The dog being muzzled, and fitted with collar and chain, will be led upon the platform, alongside the upright, perforated, iron bar ; a piece of strong whiplcord will be passed through the staple of the collar, the two ends of the whiplcord placed together, and quietly passed through one of the eyes in the upright iron bar ; drawing the staple of the collar tight up against the eye, and then quickly and firmly securing the ends of the cord by whipping them round the upright bar. There is nothing in this operation to disturb or discompose the most sensitive animal, and the most powerful dog will be thus secured beyond the possibility of resistance ; and the whole apparatus will cost but a few shillings :—next provide a pair of long callipers, rounded at the end, and slightly padded, with a capacity sufficient to contain the dog's upper jaw ; take it in hand ; come gently behind his head ; undo the muzzle, and very quietly pass the callipers over the upper jaw, making it act as directed above in the first instruction ; but to press the upper lip gently between the posterior molar teeth ; when a cord, with a noose already pre-

pared, may be slipped round the *lower jaw* by an attendant; and, by pulling downwards, the animal must, perforce, open his jaws, and he will be completely under control, whether to administer pill, capsule, or bolus, or to introduce the stomach-pump, if nothing better will do. By using the padded callipers the animal will suffer no pain or inconvenience, and the operator cannot himself be scratched or bitten; and the most ferocious and powerful dog will be as completely under control, as the smallest and most submissive spaniel. This will be inconceivably useful in large kennels, where we have very many and very fierce dogs to deal with.

Linseed tea, or mucilaginous fluid, answers best as a diluent in injections, which will be found of the greatest service in the treatment and cure of the diseases of the canine race.

Though we are entitled to speak with confidence, our desire is to impress all our readers with the conviction that there is, on our part, a perfect absence of pretension: our sole desire being to place in the hands of the public safe and reliable handbooks, explanatory of Antiseptic Practice, whether as applied to the care of the diseases that afflict humanity, or the inferior animals; and that in as small a compass, and at as cheap a rate, as the ample facilities for informing the million, and so temptingly placed within our reach, will enable us to accomplish.

DISTEMPER.—This disorder has hitherto proved so unmanageable, and that in many instances, that owners of dogs, in despair, have turned over the suffering animals to the tender mercies of quacks and empirics. There will, in future, be no excuse for such reckless abandonment of favourite and valuable animals; for those who may have the good fortune to come to the knowledge of the existence and virtues of those unrivalled specifics, Hibbert's Patent Antiseptic Remedies (see Table of Treatment), will know better than to resign their favourites into the hands of such tormentors to be tortured to death by a slow and ingenious process; and all at their own expense—under the pretence of adopting exceptional, but certain steps to insure their recovery. Surely this is heedlessly countenancing cruelty to animals.

Treatment: This disorder is feared because it is not understood, and these pretended specifics tend to aggravate the symptoms. If taken at the outset a few doses of Hibbert's Antiseptic Medicine, administered in strict accordance with the

instructions (see Table of Treatment), will arrest it at once; and if continued daily, morning and evening, until the symptoms moderate, and thereafter, daily, or every second day, as a constitutional remedy, the inherent searching antiseptic and antiphlogistic action of the medicine will purge the last trace of this dreaded malady out of the canine system in an incredible short time, when compared with the tardy and uncertain action of the remedies in common use.

Distemper is continued fever, generating morbid irritability in the mucous membranes. The eyes are first affected, followed by a defluxion from the nose. The fever pervades the entire extent of the mucous surfaces, including the alimentary canal throughout its connections; and if the defluxion from the petuitous membrane of the nose be copious and opaque, the disease may be held to be established in the system.

Still, at this stage, all that is necessary to be attended to is, on every occasion, to continue to administer the Antiseptic Medicine at shorter or at longer intervals, as the urgency of the symptoms seem to dictate; and we refer back to what we have said above, and beg to impress strongly on our readers the absolute necessity, when handling such a powerful Remedy as the Antiseptic, to be especially careful to be guided by the instructions of the *Table of Treatment to the letter*. This disorder is nothing more nor less than general fever, evidencing its presence by the all-pervading morbid excitement of the mucous membranes throughout the system.

Is it not clear, then, that an Antiphlogistic Remedy, like the Antiseptic Medicine is first desiderated to reduce the inflammation; and as the inflammatory matter disappears, the defluxion will become exhausted; and on the resumption of normal functional action, the excitement and irritability of the membranous surface must of necessity disappear, and every trace of the idiopathic ailment will vanish at the same time.

To relieve the suffering animal, the Antiseptic Lotion (See Table of Treatment) should be copiously applied, with friction, over the face, down to the *alæ* of the nostrils, around the ears, and round and under the jaws; and in every case this will be attended with the best consequences—disburthening the nostrils of the obstructive secretion, and diverting the superabundant caloric to the surface—the inflammatory agent causing the irritability in the membranous coats—at once the cause of the

disease, and the active agent which supports its existence in the system.

It seems superfluous to say more than to state plainly, that this dreaded disorder is nothing more than pervading fever—demanding prompt antiphlogistic and antiseptic treatment to subdue inflammatory, noxious, septic action, and exhaust the obstructive defluxion from the nostrils, and the abnormal secretion from the mucous membrane—aggravating febrile action, and provoking septic action, as a necessary consequent.

Who will be so bold as to say, then, that Distemper is at once incomprehensible and incurable? But the alimentary canal is involved throughout. To relieve and disburthen the *primæ viæ* and connections, we must throw up, at once, the Antiseptic Emollient Injection (see Table of Treatment). This will clear out the obstructive secreted matter, aggravating irritability and febrile action; and, as often as it is repeated, it will, by its stimulating, tonic, and Antiseptic action, restore tone to the membrane, and induce a healthy secretion—allaying unhealthy irritability at the same time.

We are thus enabled to act directly on the entire mucous lining coat throughout the system; and surely this is the rational and certain method of curing pervading fever, combined with morbid excitement of the mucous membrane.

Let it be borne in mind that the treatment we have above recommended will cure the Distemper *in any stage*.—requiring, of course, the longer time, and repetition of the curatives at the shorter intervals. But let no owner despair until he has given the Antiseptic Treatment a fair and honest trial.

Exercise, food, cleanliness, and ventilation influence the recovery amazingly. If, through neglect, pustular eruption should appear—copious applications of the Antiseptic Lotion (see Table of Treatment) and careful dressing with Salve No. 1 will speedily cure this unsightly affection.

BRONCHOCELE.—This disease is most common in pups; and is marked by a tumour on the fore part of the neck, and seated between the trachea and the skin; and if its growth be not arrested, and the nascent tumour exhausted by absorption, or dispersed by a powerful discutient, it may increase so as to destroy the animal.

Treatment: If the Antiseptic Medicine be administered internally as a constitutional remedy (see Table of Treatment)

to act from within—at the fountain head—as an absorbent and discutient of abnormal secretion and deposit, and the Antiseptic Lotion be applied with friction, as a topical remedy, with the same view, over the affected part, in the fore part of the neck, to act on the tumour formed, or forming, between the trachea and the skin,—with careful feeding, cleanliness, ventilation, and exercise, the animal, if the disease be taken in an early stage, will soon be relieved of the unsightly deformity. If the disease, from neglect, should have become chronic, the cure will be more difficult ; and will require time, and the persevering application of the remedy, both externally and internally, to effect a cure. But the owner may be assured that, from the moment that the Antiseptic Remedy encounters the disease in the system, the disease will be arrested at any stage ; the increase of the tumour will cease ; and the alterative and discutient power of the Medicine and Lotion will be employed in dispersing the unsightly deformity ; and the time occupied in the cure will be measured, by the period, longer or shorter, during which the tumour has had a chronic location in its accustomed site.

INFLAMMATION OF THE LARYNX (*Laryngitis*).—In the dog this disease is attended with cough, and sudden change of temperature ; and unfriendly atmospheric influences will aggravate the disorder. If neglected, it will become chronic, and will greatly depreciate the value of the animal.

Treatment : If the affection be recent, however acute, let a dose of the Medicine be administered immediately, and continued, as a constitutional remedy, during the course of treatment. (See Table of Treatment.) But the Lotion must be applied with friction, with the hair glove, or flesh-brush, over the parts affected ; and an Antiseptic cloth, kept moistened with the Lotion, placed round the neck, with the view of removing local irritation—the cause of the cough—and inducing normal functional action, for the purpose of stimulating the parts in the work of renovation—thus aiding nature in the removal of the chronic disease. (See Table of Treatment.)

This course of treatment must be persevered in energetically till a cure be effected ; and if so continued, there need be no apprehension of ulceration of the larynx, or any of the dreaded symptoms consequent on neglect and mismanagement.

INFLAMMATION OF THE PITUITOUS MEMBRANE, WITH DEFLUXION (CORYZA, OR COLD).—This disease is attended with defluxion

from the head and nostrils of a pellucid, limpid, or ropy mucus, with a sense of fulness. It comes on gradually, and often passes off without treatment. But every defluxion is suspicious, knowing that we have to fear the insidious and treacherous approaches of distemper. Such warnings should never be neglected, now that it is known that disease may be so easily strangled in its birth by timely treatment.

The owner has only to administer a dose of the Antiseptic Medicine on the appearance of the first symptom, and continue to administer the Medicine as a constitutional Remedy, during the whole course of treatment, till the symptoms moderate and disappear. Apply the Lotion as an external Remedy, with smart friction over the face down to the alæ of the nostrils, round the ears, and over and under the jaws,—to divert the internal irritation outwards, and diminish the excitability of the petuitous and connecting membranes. Continue this course of treatment with perseverance; and you will succeed in realizing a speedy cure of this disorder, whether recent or more continued. (See Inflammation of the Larynx—Laryngitis—Class I.; Roaring, Class II.; Inflammation of the Larynx—Laryngitis—Class III.; Inflammation of the Throat, &c., &c., Class IV., in the present volume; and Inflammation of the Larynx, p. 60, in my treatise on Human Beings.)

INFLAMMATION OF THE LUNGS (*Pneumonitis*).

Symptoms: In dogs this affection is marked by a quickened pulse, preceded by shivering fits, appetite generally diminished; dullness, lassitude, and unwillingness to move; animal squats on his hocks; difficulty of breathing; sense of oppression and suffocation; at length refuses to sit and constantly stands; legs swell; and often dropsy in the chest from effusion; pulse denotes disease; latent and pervading weakness, but febrile excitement misleads, by appearance of considerable strength; at length, animal drops suddenly; and lies for several minutes as if dead, or expiring; again revives; but at last sinks without a struggle and quietly dies.

Treatment: The lungs have been inflamed from the outset, and as the disease progresses, the pleura, or external covering, and the neighbouring parts become involved; and there is an effusion of serum, and the consequences.

Employ the Medicine at once to reduce the inflammation, and to arrest the effusion, and exhaust the deposited serum by

absorption. This will remove the original cause of the disease, and remedy the consequences ; when every appearance of depression or suffocation will yield to the active power of the Medicine. (See Table of Treatment.) Continue this course throughout the whole period of treatment, and let the Medicine be used as a constitutional remedy. (See Table of Treatment.)

But the Lotion, with friction (and the flesh-brush) should be copiously applied over the chest and its surroundings—to divert the imprisoned caloric to the surface, and thus aid the Medicine in exhausting the inflammatory action within ; and to help on the work of absorption at same time ; thus exhausting the deposited serum—the thoracic effusion. This disease is easily subdued at the outset—therefore no time should be lost. But by employing the method recommended above, and persevering with it steadily and confidently, the disease may be arrested in any stage, and the animal preserved so as to be more or less useful—depending on the damage done to the organ by his owner's neglect. If indigestion should be present ; or any latent secretion of morbid matter should be suspected, from whatever source derived—oppressing or obstructing the alimentary passages and connections—let the Injection be occasionally administered ; and this will be attended with the best consequences. Attend to careful feeding, cleanliness, ventilation, and exercise. (See Inflammation of the Lungs—Pneumonia—Class I. ; Inflammation of the Lungs—Pneumonia—Class II. ; Inflammation of the Lungs—Pneumonia—Class III. ; Inflammation of the Lungs—Pneumonia—Class IV., in the present volume ; and Pulmonary Consumption, p. 52 ; and Inflammation of the Pleura—Pleurisy—p. 54, in my treatise on Human Beings.)

ASTHMA.—Difficulty of breathing, returning at intervals, attended with a sense of constriction across the breast and lungs.

Symptoms : Langour, flatulency, constriction and pain in the head, heaviness over the eyes, sickness, pale urine, disturbed rest, excessive secretion from the exhalants of the bronchiæ, a relaxed and debilitated state of the bronchial vessels—the suffocating tightness of the chest being the result of a spasmodic stricture of the bronchial vessels, spreading thence to the muscles of respiration, or produced by the infraction of the

vessels from a superabundant effusion from their exhalants—with or without cough—appetite increased.

Treatment: We have here local irritation, and depressed functional action, with effusion to deal with; and if taken early this disease is easily cured. The treatment will be the same as under Inflammation of the Lungs (*Pneumonitis*), see above; demanding more or less persistence, depending on the urgency and continuance of the symptoms. If Plethora and Indigestion should prevail, employ the Injection (see Table of Treatment).

INFLAMMATION OF THE LIVER (*Hepatitis*).—This is a febrile affection, attended with tension and pain of the right hypochondrium, often pungent like that of Pleurisy, but more frequently dull and obtuse; pain in the clavicle, uneasiness in lying down on the left side, difficulty of breathing, a dry cough, vomiting. The liver of the dog is often unsound, and not suspected, from over feeding and excessive indulgence. When disease of the liver appears under other circumstances, it is seldom, if ever, the idiopathic disease, it is merely a sympathetic affection. If the diseased animal should appear fat, the mucous membranes will be pallid, tongue white, pulse full and quick, animal dull, appetite fair, feces natural, bowels irregular, breath offensive, anus enlarged, rump denuded of hair, the naked skin covered with a scaly cuticle, thickened, and partially insensible. If the animal be in low condition, the dog will look emaciated,—a living skeleton—with enlarged belly; dull and sleepy; pupil of eye dilated; appetite good, and manner gentle; tongue white, and occasionally reddish towards circumference; membrane of eye very pale, but not yellow; lining of mouth a faint dull tint; coat does not look positively bad, but wears a peculiarly lustreless, dead, and unnatural appearance.

Treatment: If, through unpardonable neglect, the structures have been much changed, no treatment can be affected to restore them. If not, the cure will occupy a longer or shorter period, in proportion to the period of neglect, and the progress of the disease, whether rapid or tardy. Here we have inflammatory action, and a change of the substance of the organ, depending on continued abnormal functional action.

Employ the Medicines at once to arrest febrile action—the original cause of the disease—and to aid nature in the work of renovation and reconstruction, and to favour the resumption of natural functional action, to accomplish these purposes. The

absorbent action of the Medicine will exhaust any effusion, and its antiseptic power, will by its inherent alterative and antiseptic action, arrest and exhaust septic action immediately. It is proper, on all occasions, to insist on strict attention to feeding, cleanliness, ventilation, and exercise. (Inflammation of the Liver—Hepatitis—Class I.; Inflammation of the Liver—Hepatitis—Class II.; Inflammation of the Liver—the Rot—Class III.; Inflammation of the Liver—Hepatitis—Class IV., in the present volume; and Inflammation of the Liver, p. 59, in our Treatise on Human Beings.)

INFLAMMATION OF THE STOMACH (*Gastritis*) is known by fever, heat, pain in the epigastrium, vomiting, pulse small and hard, and general prostration of strength. It is caused by taking acrid or mixed substances in the stomach; improper food; lapping cold water, or other cold liquids, in too great quantity, after being much over-heated and wearied by violent exercise; and it may arise from sympathy with inflammatory action in neighbouring parts, communicated to the stomach. It may arise from irregular feeding, and surfeit; but is more common, in ladies' favourites, from repletion and overindulgence. The dog shows sickness as a first indication often, and little notice of it is taken; thirst constant; the appetite fails; animal lies and pants, and avoids warmth; stretched out on its chest or belly; breathing quick; nose dry; moans from inflamed stomach. It generally arises from improper treatment. It is sometimes accompanied with diarrhœa; but the excess of sickness will indicate the progress of inflammatory action in the stomach.

Treatment: Though the Medicine may be administered at once (see Table of Treatment), it is not likely to be retained in the stomach. Lose not a minute in throwing up the Emollient Injection (see Table of Treatment), and it may probably be retained a sufficient time to aid in quieting the spasmodic irritability of the stomach, and enable it to retain the Antiseptic Medicine at the next attempt. The Injection should be administered every hour, or oftener, until irritability be subdued, and spasmodic action disappears. But the Lotion, with the hair glove, or flesh brush, and friction, must be carefully applied over the seat of the disease, and the friction be extended over the sides, to aid in arresting the progress of inflammatory action in these directions, by attracting it to the surface in its passage thitherwards. It will thus, by degrees, become exhausted in the

central organ, where it first appeared, and its extension will be prevented. (See Inflammation of the Rumen, Class I.; Inflammation of the Stomach, Class II.; and Inflammation of the Stomach, p. 58, in our work on Human Beings.)

CONSTIPATION AND COLIC.—In the dog the bowels are almost of uniform size throughout, with the exception of the duodenum and the posterior part of the rectum. The cæcum is but a little sac attached to the main tube, with one diminutive opening; but in every instance of intestinal disease it is found to be more or less inflamed. Costiveness is natural to the dog, and the fæces, in health, are never expelled without straining. If the fæces should appear hard and dry, it proves that the natural secretion of the rectum is deficient, and that the parts have lost their activity.

In the dog the contents of the abdomen may be distinctly felt, from the thinness of the abdominal covering; and the fingers may easily ascertain the presence of solid matter in the rectum. If in quantity and indurated, the application of the emollient Injection (see Table of Treatment) will immediately relieve the bowels and its connections; and the emollient and tonic nature of the injected volume, will lubricate the mucous coats within, and tend to allay irritation, and correct the generation of an offensive gaseous volume at the same time.

The Medicine should, at the same time, be administered by the mouth, to act in the same manner as the Injection; and to aid in restoring normal functional action throughout the entire extent of the intestinal canal and its connections; thus securing temporary relief, and providing for the permanent cure of an inconvenient and, if neglected, a very dangerous affection,—even to the dog, an animal naturally of a costive habit.

If the constipation be especially obstinate, the application of the Lotion, over the abdominal region, with friction, and judicious manipulation, will often relieve the sufferer—producing the same effect as active exercise, without exposure to the consequent fatigue. Costiveness often produces violent pain and alarm, driving the sufferer almost to frenzy; and Illiac passion, and rabies, are often dreaded—the one or the other—and they turn out after all to be but the creatures of imagination. Be careful, during convalescence, to guard against relapse, or a return of the symptoms; and do not, too early, abandon the proper course of treatment.

Colic (*Bellyache*).—Irritability, causing acute pain and spasm, incipient inflammation, which neglect will fan into a flame, and may end seriously. At whatever period it may occur, and however hopeless the prospect, the Antiseptic Medicine administered according to the directions in the Table of Treatment, will afford the best chance of speedy relief. It may be idiopathic; but it is the frequent associate of many diseases.

Symptoms : We have elsewhere detailed these fully; but the dog betrays uneasiness even in sleep, when he will moan or cry, and change his position occasionally, betraying uneasiness. The general appearance is little effected,—nose cool and moist, but not after a long continuance. But excessive purging and griping proves the bowels to be involved, and a sloughing, or exfoliation of the coats may follow. All the deceitful palliatives administered to deaden pain are fallacious,—the one equally with the other. The true palliative is to remove, immediately, the irritating contents, and destroy the irritation which render these offensive, and along with this the internal excitability. With this view the true curative is the exhibition of the Medicine; and the application of the Emollient Injection—simultaneously we may almost express ourselves—as not a moment should intervene between the employment of them. We need scarcely explain the reciprocal action of these remedies again, unless to save references to other pages of this volume or that on Human Beings, and to impress the *modus operandi* the more distinctly and indelibly on the minds of our readers. The clearing out of the stomach and canal will disburthen the intestinal passages of their irritating contents—giving present relief and allaying local irritation. The Antiphlogistic, Anodyne, and Antiseptic qualities of the remedy tending to arrest and prevent inflammatory action, allay pain, and anticipate any septic tendencies. Do not be deceived by any apparent cure; such may be delusive;—so guard carefully against relapse, or any possible return of the symptoms.

Strangulated Hernia (*Iliac Passion*) and Intussusception,—a portion of the gut passing for some way within another part—are the not unfrequent consequences of the contortions caused by the griping pains of Colic. But *Iliac Passion* may be considered an incurable affection, though the anguish may be partially relieved by the external application of the Lotion (see Table of Treatment; see Constipation and Colic, Class I.; Colic, Class II.;

see Colic, Class III. ; Colic, Class IV. ; and Colic, or Bellyache, p. 77, in my Treatise on Human Beings).

INFLAMMATION OF THE INTESTINES (*Enteritis*).—Symptoms : It is known by the presence of pyrexia (fever), fixed pain in the abdomen, costiveness, and vomiting. The pain generally extends over the whole abdomen ; sickness and vomiting, obstinate costiveness and thirst ; a quick and hard pulse. This is a painful and fatal disorder ; and the treatment must be prompt and decisive. The inner coat is inflamed, and literally dried up, and the muscular coat contracted. Therefore the course of treatment is plain and obvious. Colic and constipation are both attendant on enteritis ; the pupil of the eye is dilated ; the extremities cold ; the breath hot, and the nose dry ; the tail pressed firmly against the anus ; the urine scanty and high coloured ; tongue rough and clammy ; thirst great ; appetite gone ; the animal will stretch himself out upon his belly, or on his side ; increased heat in the abdomen ; pressure causes no pain ; but gentle friction seems rather agreeable—affording temporary relief.

Treatment : The Medicine must be administered as an emollient (see Table of Treatment), while it acts as an antiphlogistic, fortifying the stomach against any possible translation or extension upwards of the inflammatory symptoms. Let the Emollient Injection be thrown up immediately (see Table of Treatment) to relieve the intestinal canal of the constipating irritating, morbid contents ; thereby removing a consequent—whilst aiding, at same time, in subduing the irritation and inflammatory action, which was the original cause, and supplied the pabulum for the support and continuance of the disorder. This treatment must be continued,—at longer or shorter intervals, indicated by the urgency of the symptoms, and the stage of the disease at which the Antiseptic Treatment is first employed. The repetition of the doses and clyster must be regulated by the same rule.

If the pain should be excessive, much relief will be obtained by the application of the Lotion, with friction, over the parts ; employing the hair glove, or flesh brush, until relief be obtained. (See Inflammation of the Intestines—Enteritis—Class I. ; Inflammation of the Bowels—Enteritis—Class II. ; Inflammation of the Bowels—Enteritis—Class III. ; Inflammation of the

Bowels—Enteritis—Class IV. ; Inflammation of the Stomach and Bowels—p. 58 in my treatise on Human Beings.)

DYSENTERY AND DIARRHŒA.—One of these diseases is frequently an introduction to, or the precursor of, the first. Dysentery is often the consequent of neglected Diarrhœa. We have treated of these diseases at length elsewhere in this volume. In the dog it is difficult to determine the point where the one ends and the other begins. The acute diarrhœa is very common in the pup; chronic in adult animals. The danger will be measured by the violence of the spasmodic affection. The thirst is intense; quick pulse. This affection may terminate in twenty-four hours. The nose is moist; breath offensive; appetite ravenous; pulse quick and weak; anus inflamed and often protruding, and covered with piles; fœces liquid, sometimes black, sometimes lighter than natural—often mixed with mucous and blood. This affection may last for weeks together.

Treatment: Acute diarrhœa may be treated like colic (see Colic or Bellyache, under the present class, and the other references quoted therein). Chronic diarrhœa will succumb to the like treatment. (See Colic and Bellyache, under the present Class; and other references quoted therein.)

DYSENTERY arises frequently from neglected Diarrhœa, and is marked by contagious fever and griping; stools chiefly mucous, mixed with blood—the natural fœces being retained, or voided in small, compact, hard substances, known by the name of scybola, with loss of appetite. It is caused, besides, by unwholesome or putrid food, and noxious exhalations and vapours generated in the kennel, especially if erected in low marshy ground, where it usually proves highly destructive. Atmospheric influences very frequently give rise to dysentery in man and beast.

Treatment: The same treatment will be suitable as that recommended under Diarrhœa and Colic, or Belly-ache, in judicious hands. The intervals between the doses, injections, and applications of the Lotion to depend, of course, upon the stage of the disease and urgency of the symptoms. See—

INFLAMMATION OF THE PERITONÆUM (Peritonitis).—This inflammation takes place in the peritoneal covering of the viscera which covers the abdomen; and the symptoms are similar to those of the inflammation of the viscera. There is

tenderness on its part on pressure, and fixed pain when the viscera are not affected, accompanied by fever, and general disturbance of the system. It may be produced by any of the well known causes of inflammation.

Symptoms : There will be panting ; restlessness ; occasional cries ; avoidance of warmth and a desire for cold ; dry mouth and nose ; thirst ; constipation ; hard quick pulse ; catch in breathing ; the animal constantly inclining his head to his abdomen.

Treatment : Administer the Medicine immediately to reduce the inflammation, and continue it at short intervals (see Table of Treatment,) till the symptoms moderate, and it be thoroughly subdued. You must employ the Lotion at the same time copiously over the seat of the inflammation, with friction with the hair glove or flesh brush, to allay pain, by attracting the superabundant caloric, the cause of the inflammation, and consequent pain, to the surface, thus aiding the Medicine in lessening constitutional irritation and disorder ; thus lessening the energy of the disorder, and increasing the recuperative power and the energy of system in its attempts at overcoming it. (See Table of Treatment.)

All palliatives are useless and delusive ; and the rational method of cure is to subdue and exhaust the inflammatory action—the cause of the disorder—by the internal and external use of the Antiphlogistic Remedy. (See Dysentery and Diarrhea, Class II., Dysentery and Diarrhea Class III., Diarrhea Class IV., in the present volume ; and Diarrhea, in my treatise on Human Beings.)

PILES.—The seat of this disease is the extremity of the great gut, or rectum, upon the side of it, round the anus, or fundament. The rectum is composed of several membranes, connected to each other by an intervening cellular substance. The disease is caused by the dilation of the hæmorrhoidal vessels, caused by the excessive pressure of the muscles and excrements in their passage, causing these capillaries to become varicose and burst, from their weakness and inability to resist the impulse of the blood.

The dog, from his costive habit, is especially subject to this disorder, as he habitually employs violent straining in voiding his fæces.

Treatment : The Injection should be employed here, and a

syringe used to propel it upwards with the necessary force. This will act as a refrigerant and mild styptic, allaying irritation, clearing out the granulators and cavities, and acting as a reliable healing fluid in promoting a union of the parts, and an obliterant of lesion.

The Medicine should be administered as a constitutional alterative (see Table of Treatment), to correct the humours and rectify the habit, and to aid the Injection in insuring and hastening the kindly healing of the parts.

The Antiseptic Salve should be employed besides, and every diseased part within reach should be carefully dressed with this styptic and healing ointment.

FITS.—We have already stated that the nervous system in the dog is developed in a very high degree ; and fits occur often, and from many causes, which we need not pause to enumerate ; as the treatment will be the same in every case.

Treatment : When a dog has a fit, secure him first, so that he may not be able to run away after the fit is over ; for, from his manner, he might be mistaken for rabid, and followed and put to death to prevent danger to the community. The animal is insensible, and cannot swallow ; so that, in every instance the first application should be the Injection, when the dog should be left entirely to himself, and in perfect silence for half-an-hour ; after which, if ineffectual, the Injection must be repeated, and the dog left again in perfect stillness. After recovery, the regulation of the stomach must be attended to, by administering the Medicine as a constitutional dose—to promote healthy functional action—to strengthen the system, and prevent a recurrence. But before leaving the animal quiet, on each occasion, after throwing up the Injection—apply the Lotion with friction with the hair glove, or flesh brush, over the nape of the neck and along the spine, to stimulate the cervical and dorsal nerves, and provoke them to activity. Whenever fits occur in the human family, or amongst the inferior animals, this is the only certain and efficient mode of treatment. (See Epilepsy, Class I. ; Epilepsy, Class II. ; Epilepsy, Class III. ; Epilepsy, Class IV. ; Suspended Animation, Trance, p. 113 ; Epilepsy in what it consists, p. 113 ; Fainting, or Syncope, p. 119, in my treatise on Human Beings.)

ST. VITUS DANCE (Chorea).—Symptoms : The approaches of chorea are slow ; a variable and often a ravenous appetite ;

loss of usual vivacity and playfulness ; swelling and hardness of the lower belly ; and in general a constipated state of the bowels, aggravated as the disease advances ; and slight, irregular, and involuntary motions of the different muscles—the effects of nervous irritation—precede the more violent convulsive motions. Whether lying or standing, there is a catching of the limb or limbs ; sleeping or waking the symptoms continue, yet the dog appears, in other respects, well ; spirits good and contented ; but in sleep he starts up aroused by sudden pain, and turns round with a piteous expression, as if appealing to his friends to relieve him of the tormentor.

The morbid appetite must not be indulged, beyond a sufficiency of beef tea, thickened with rice. Water should be placed within his reach ; and, if necessary, let his head be held when he drinks.

Treatment : The treatment will be the same as indicated in Fits under the present Class ; the repetition of the doses, Injections, and the application of the Lotion externally, depending on the severity of the affection and the urgency of the symptoms. (See Fits under the present Class, Class V. in the present volume, and the accompanying references.)

PARALYSIS.—We have treated of this alarming affection in its various forms elsewhere in this volume, and in the treatise on Human Beings. This disease is known by the loss or diminution of the power of voluntary motion, affecting any part of the body. Sometimes one side is affected, and not unfrequently the hind extremities. It is occasionally symptomatic of other diseases. It may follow apoplexy ; and may be occasioned by anything that prevents the flow of the nervous power from the brain into the organs of motion ; hence tumours, over distension, and effusion often give rise to it. It may also be caused by translations of morbid matter to the head, by the suppression of any usual evacuation, from any cause ; and by pressure on the nerves from the presence of luxations, fractures, wounds, or external injuries. Whatever tends to relax and enervate the system, may prove an occasional cause of this disease.

Treatment : The object will be to procure the removal of any existing obstruction to the flow of the nervous power from the brain to the extremities—to the part, in fact, suffering from paralysis. The Medicine and Injection must be adminis-

tered at the outset, to clear out the *primæ viæ*—throughout the whole length of the intestinal canal and its connections, and to disburthen it of any obstructive contents, and relieve the system from any consequent inconvenient oppression. But no time must be lost in applying the Lotion, with smart friction, not only over the parts affected—to promote local circulation—but the cervical, dorsal, lumbar, and sacral nerves must be stimulated to activity, by applying the external treatment liberally over the nape of the neck—the seat of the origin of the cervical nerves—and along the spine, to act powerfully on the dorsal, lumbar, and sacral nerves, distributed over the body, and to the extremities.

In this way circulation will be promoted in the dead and paralysed parts; and the obstruction, or cause of temporary lesion, will be removed or remedied by inducing, by the stimulus of the remedy and the accompanying friction, a resumption of normal continuous functional action; which, if gradually restored, could not fail to restore, at same time, motion and sensibility to the paralysed members.

In every case of paralysis, from whatever cause arising, whether in the human frame or amongst the inferior animals, this is the only rational and certain means of cure.

The Medicine should be continued, after recovery, as a constitutional dose—to regulate the system—to promote and perpetuate tone and tension,—thus providing against any possible relapse or recurrence. (See Palsy and Apoplexy, Class I.; Apoplexy and Palsy, Class II.; Apoplexy and Palsy, Class III.; Apoplexy, Class IV.; and Apoplexy, pp. 105 and 106; Epilepsy, p. 112; Catalepsy, p. 113; Hemiplegia, p. 110; paragraph III. in my treatise on Human Beings.)

RHEUMATISM. This disease is distinguished by pyrexia or fever; pains in the joints, increased by the action of the muscles belonging to the joint, and heat in the part. It may be either acute or chronic.

Acute Rheumatism is preceded by shivering, heat, thirst, and frequent pulse; after which pain commences and soon fixes on the joints.

Chronic Rheumatism, is distinguished by pain in the joints, without pyrexia or fever.

Acute Rheumatism comes on with lassitude and rigour; succeeded by heat, thirst, restlessness; a hard pulse; followed

by excruciating pains in different parts of the body; with swelling, and great tenderness to the touch.

Chronic Rheumatism is attended with pains in the large joints, and shifting from one joint to another, without occasioning any fever.

Translations to the stomach and bowels are extremely dangerous; and in ordering and pursuing treatment this eventuality should be kept constantly in view.

In dogs, rheumatism and gouty pains are often caused by the gross, and morbid humours generated by over-feeding, and want of exercise; by surfeit and over-indulgence.

Treatment: In acute rheumatism, the Medicine and Lotion must be applied—the first internally, as an alterative and antiphlogistic; the second externally, to attract the inflammation outwards, and aid the internal action of the Medicine as an anodyne and antiseptic; easing the pain, and correcting the gross and morbid secretions throughout the system. If the disease be the result of surfeit and over-indulgence, the Injection should be used frequently, to disburthen the intestinal passages and their connections of their unhealthy and morbid contents; and to stimulate the internal coats throughout, provoking a free secretion of morbid matter from the internal surfaces,—deodorizing, and, by its alterative action, rendering it harmless; and thus gradually drawing out of the gross and bloated body the morbid humours which support its obesity, and, at the same time, torture it with pain. The external application of the Lotion, in the same manner as we have recommended in paralysis, under this class (Class V.), and extending the friction, in the present case, over the chest and belly, would give a further opportunity for proving the anodyne and antiphlogistic powers of the Remedy.

MADNESS (*Rabies*).—This disease is innate in the canine genus, and may be communicated from this race. When a dog is affected with madness he becomes dull and solitary, and endeavours to hide himself, seldom barking, but making a murmuring noise, and refusing all kinds of meat and drink; flies at strangers, but, in this stage, remembers and respects his master. His head and tail hang down, he walks as if overpowered by sleep, and a bite at this period, though dangerous, is not so apt to bring on the disease in the animal bitten, as one inflicted at a later period. At length the dog begins to pant;

he breathes quickly and heavily ; his tongue hangs out ; his mouth is continually open, and discharges a large quantity of froth. Sometimes he walks slowly, as if half asleep, and runs suddenly, but not always directly forward. At last he forgets his master ; his eyes have a dull, watery, red appearance ; he grows thin and weak ; often falls down ; gets up and attempts to fly at everything, becoming very soon quite furious. He seldom lives in the latter state thirty hours ; and his bites towards the end of his existence are the most dangerous. The throat of a patient suffering from hydrophobia is always much affected ; and the animal, at a certain stage, rushes wildly to the water, plunges his head right down into it, and makes vain attempts to swallow—which he finds impossible, the throat being so constricted as to prevent his being able to swallow a single drop ; *and this involuntary thirst greatly aggravates the disease.*

Treatment : It is very difficult to medicate in this alarming disorder, whether in the way of relief or cure. We have treated of this affection at length in our treatise on Human Beings, and we shall now endeavour to prescribe for this malady in the canine race.

Fortunately, there is no satisfactory proof that the bite of a human being suffering from hydrophobia can communicate the disease to another.

The knowledge of the true nature and cause of this disease, and the establishment of the possible certainty of affording relief (and it may happen occasionally establishing a cure), is of such invaluable importance to the public, that I shall take some trouble to consider the matter again shortly, and endeavour to suggest the possible means of alleviating suffering, and it may be, occasionally, of accomplishing a cure ;—and insuring perfect safety and immunity to those good Samaritans who may be disposed to make the attempt—observing due prudence and caution at some time.

On post-mortem dissection, in hydrophobia, the appearances are unusual aridity of the viscera, and other parts, denoting the ravages of acute inflammatory action, more especially in the fauces, gula, larynx, and stomach, and an effusion of blood in the lungs. We have stated, in our treatise on Human Beings, that post-mortem examination has recently disclosed a hitherto unsuspected fact, the presence of a multitude of gnawing worms in the rabid subject,—which, if not the cause, are not

likely to have been a consequent of the disease. Inflammation may also be traced in the brain, with superficial effusion, and a redness of the pia mater, caused by the same agent. There has been, generally, if not always, a total absence of the least morbid appearance, either in the fauces, diaphragm, stomach, or intestines.

There have been instances of successful cure of hydrophobia in a few cases,—but they have not said in what stage of the disorder.

The idea of excising the bitten part, and making certain of immunity, and using the cautery, may be attended with disappointment,—especially if not attended to on the instant; because absorption is so active, that the virus may have penetrated already beyond the reach of knife or cautery. Of course, if the part be excised early enough, and the cautery applied efficiently, before the absorbents have had time to drink up the virus, this means of prevention would succeed, as might reasonably be expected. Of course, this holds true in the human, as in the brute subject.

But is it possible to cure the idiopathic,—the constitutional ailment?

The post-mortem examination shows traces of acute inflammation, but no septic action; and after the progress of the disease has, by constriction of the throat, prevented deglutition, inflammatory action would naturally progress like a raging fire within, *with not a drop of water to quench it*. Does not this sufficiently account for the unusual aridity of the viscera and other parts observed on dissection?

It is clear, then, at the outset, that we have nothing to deal with beyond acute inflammation and its consequents;—it matters not whether in the brain or elsewhere, the remedy must be the same. We have to subdue latent, or an acute inflammatory action, and it is perfectly clear that if this can be effected before change of structure, varicose action, or lesion, has supervened, from culpable delay in having recourse to treatment, the incipient inflammatory action, generating the disease, and determining in hydrophobia, is as capable of cure as any other acute inflammation. The fact is, that the disease arises from mismanagement in most cases; and in neglecting to observe, and disregarding the warnings conveyed by the incipient and progressive symptoms.

In order to make security doubly sure in such cases, upon the first suspicion of the existence of hydrophobia, let the animal be secured as directed in the instructions given for administering medicine to large and ferocious animals in the introductory remarks in this Class. It is clear, if the precautions therein suggested, be taken, no operator can possibly be scratched or bitten. The operator can proceed with perfect coolness and confidence in administering Medicine, or Injection, or in applying friction, and in manipulating any and every part of the body to any extent. *One thing only he must be especially careful of—he must on no account let his bare skin come in contact with the frothy saliva escaping from the mouth, as this discharge is the undoubted seat of the inoculating virus.*

After the head is firmly secured to the upright, perforated iron bars, as directed, the callipers may be used to raise the upper jaw; and the attendant—with cord and running noose—will attach the same with impunity round the under jaw; and pulling downward, any remedy, whether solid or liquid, can be administered with perfect ease and safety. Of course, there will be no difficulty in throwing up the Injection, or in applying the Lotion, with friction, or any other remedy.

Now, if acute inflammatory action is to be subdued—and, on dissection, there is no evidence whatever of the havocks of any other destructive agent—and if a powerful antiphlogistic agent, like the Antiseptic Medicine, be administered in time—before constriction of the larynx supervenes—is it not probable that the inflammatory action might be subdued in hydrophobia, just as easily as in any other affection? There is surely nothing unreasonable in anticipating success in subduing incipient inflammatory action in one type as easily as another—for this depends entirely *on the acuteness or violence of its action*; and so does the ultimate form of the disease—determining in the production of one malady or another, wherever the malignant generating virus may rush for local development. In fever, of course, the affection becomes general. It is pretty evident, then, that, if by administering the Antiseptic Antiphlogistic Remedy internally and externally, the Medicine, the Injection, and the Lotion, in strict accordance with the instructions to be found in the Table of Treatment, the inflammatory action may be arrested before aridity and change of structure have proceeded so far, accompanied by constriction of the throat and the impos-

sibility of swallowing,—the disease will very probably succumb to the refrigerant and antiphlogistic action of the Antiseptic Remedy, and the animal may be spared all the consequent inevitable suffering. The idiopathic disease is of the acute inflammatory type: there is no evidence of septic action, and none of the ravages of any other destructive morbid agent. Is it then too much to predicate—if this action can be arrested before it accomplishes irreparable destruction of tissue, varicose action, and lesion—that it may be subdued as easily as any other action of a similar type. Because of its acuteness and violence, you pronounce it incurable. The aggravated symptoms are but the result of neglect. Neglect and delaying to have recourse to treatment, gives the inflammation time to work irreparable injury: it is so in all other inflammatory disorders. But it does not follow that the disease is incurable before it accomplishes irreparable destruction, local or general. After the animal has lost the power of swallowing, from laryngeal constriction, the Injection can still be administered, for experiment; and the Lotion, with friction, applied with the hair-glove, or flesh-brush, over the seat and origin of the cervical, dorsal, lumbar, and sacral nerves, distributed throughout the body—in order to give a last chance for the manifestation of the inherent antiphlogistic and alterative remedial power of the Antiseptic Remedy.

If either human being or animal be bitten, the part must be thoroughly washed out, and purified with the Lotion repeatedly, and dressed with Salve No. 1; and a course of the Antiseptic Medicine must be administered, as a constitutional alterative, to destroy the virus, or any latent malignant agency possibly lurking in the system.

That owner, or tender, then, is highly culpable, who does not apply the proper remedy on the first suspicious symptom betraying itself—in this as in every case of incipient disease—before it has had time to develop into danger.

FRACTURES AND DISLOCATIONS.—After setting, or reduction, the parts must be swathed in the Antiseptic Cloth, kept constantly moist by the Lotion; and the Medicine must be taken internally, during the progress of the cure, to prevent and arrest inflammatory action, correct the secretions, in order to promote a kindly reunion of the parts, and to restore the proper degree of natural tension. (See Class I., Class II., Class III., and Class IV., in the present volume; and

Cuts and Abrasions, Burns and Scalds, p. 23; and Bruises, Sprains, Scalds, and Open Wounds, pp. 81 and 82, in our treatise on Human Beings.

BRUISES AND STRAINS.—In bruises and strains the topical application of the Lotion, with friction, will disperse any abnormal secretion; arrest and reduce swelling; promote healthy functional action in the parts; and restore the proper degree of natural tension. (See references in Fractures and Dislocations, in the present volume.)

OPEN WOUNDS, RECENT AND CANCEROUS.—In the case of open wounds of every description—whether recent or cancerous—the Lotion must be used as a deodorizer, detergent, and mild styptic and alterative—deodorizing and disinfecting the discharge, and extracting and exhausting virulent inflammation; and the careful dressing with the Antiseptic Salves, No. 1, No. 2, and No. 3 (see Table of Treatment), will complete the cure. In recent wounds, these remedies, after extracting what is hurtful, will dispose to healing by first intention; and in cancerous wounds, the character of the wound and discharge will be both altered; healthy granulation will result; and healthy pus will take the place of the foul and ichorous discharge, peculiar to carcinomatous wounds of all kinds. (See references in Fractures and Dislocations, in the present volume.)

DISEASES OF THE SKIN.—We have dwelt on these at length, in Classes I., II., III., and IV. of this volume, and in Scabies in our treatise on Human Beings; and these diseases are so very similar in their nature and development, especially in the former classes, that it seems unnecessary here to say more than this—that the use of the Lotion as an abstergent, refrigerant, deodorizer, disinfectant, and reliable healing fluid, and the application of the Antiseptic Salves, No. 1, No. 2, and No. 3 (as ordered in the instructions under each disease), acting as associate and supplementary remedies, singly or together, if employed in strict accordance with the instructions to be found in the Table of Treatment, will be found, on all occasions, the certain and reliable means of insuring relief and cure in every stage, whether recent or aggravated.

DISEASES OF THE EYE.—In all eye diseases, the Antiseptic Lotion, diluted (see Table of Treatment), as a refrigerent, antiphlogistic, detergent, and reliable healing fluid, associated with the Antiseptic Salves, No. 1, No. 2, and No. 3, as associate

remedies—where applicable and necessary—will speedily remove any redness, varicose action (the consequences of inflammation); cool and strengthen the parts—heal any supervening lesion, and very speedily effect a perfect cure, in all stages, where possible. Blindness or impaired vision is nothing more, very frequently, than the natural punishment of neglect, and want of cleanliness. The Medicine should be taken internally, as a constitutional alterative, in all obstinate cases—to medicate the circulating fluids and secretions, and induce a good habit of body, at the same time. (See Table of Treatment.)

PREGNANCY, GESTATION, AND PARTURITION.—During pregnancy, whenever febrile excitability or any suspicious symptom manifests itself, the Medicine should be administered as a constitutional dose, to arrest and subdue irritability, from whatever unfriendly cause proceeding. During the period of gestation, the like rule should be observed; and, on approaching parturition, if inflammatory action should appear—as inflammation of the teats—or, farther on, hardened swellings, or indurated tumours, from the milk accumulating in the glands, curdling, and acting as a foreign body and an irritant,—the parts should be immediately manipulated with the Lotion, and dressed carefully with the Antiseptic Salves, where necessary. Whenever operations take place—however important and dangerous, or small and inconsiderable—the Lotion and Salves will be found equally indispensable to promote and hasten a cure, and healing by first intention:—first extracting what is noxious and hurtful; for there is no gain and no merit in exhibiting a whole skin and prominent cicatrice, if we imprison the leaven of future disease within. After parturition, it is a good practice to continue the Medicine as a constitutional dose; for, while medicating to the slut, you are, through the milk of the mother, medicating to her progeny; and, by thus providing healthy nourishment, insuring to the litter vigorous and healthy constitutions. The pups, as they grow up, will, of course, be treated as we have advised under the titles of the different diseases, as they may supervene from time to time; for they must, like their kind, in their time, become subject to their own share of all the diseases that flesh is heir to.

CLASS VI.

DOMESTIC POULTRY.

Our Domestic Poultry are of three orders of the class aves—viz., 1, the rasorial, or gallinaceous order; 2, the columbine, or gyratorial order; and 3, the natatorial, or swimming order.

The digestive organs of the rasorial, or gallinaceous, group, are thus constituted. The oesophagus, or gullet, leads into a dilatation, called the crop, craw, or ingluvies—a large membranous cavity, which lies just before the breast-bone, and which receives the food, when first swallowed. It is furnished with many mucous and salivary glands, the exudation from which tends to soften the grain, and fit it for further elaboration. The crop, or sac, is not very sensible; and, when gorged by food, may be opened with a sharp penknife, and emptied of its contents; and if the edges of the wound be neatly joined together, and well secured, with a few well-placed stitches—the bird being kept for some time fasting, and afterwards only allowed a little soaked bread, or such like food—will frequently recover, without any trouble, under the Antiseptic Treatment. The part must be rubbed over with the Lotion, or gently sponged over or painted over with a hair pencil, and then neatly and carefully dressed with the Antiseptic Salve No. 1, and a dose of the Medicine given at same time. (See Table of Treatment.)

To the crop succeeds the *ventriculus succenturiatus*—a narrower portion—the lining membrane of which is covered with glandular orifices, pouring out a copious secretion of gastric juice, which mingles with and dilutes the food in the grinding stomach, into which the *ventriculus succenturiatus* directly leads. It is a powerful grinding machine, composed of immensely thick and powerful muscles, lined with a tough coriaceous

membrane, which act on the food like two millstones working upon each other—trituring the granular substances into a pulp, by the aid of the gastric juice. To aid in the work of trituration, the fowls swallow gravel and minute pebbles; and without a sufficiency of these digestion would be superseded. The pultaceous mass passes from the gizzard into the duodenal portion. There are two long cæcal appendages; the liver is furnished with a gall bladder, whence the bile is carried into the duodenum, and the secretion of the pancreas is likewise conducted into the duodenal passage.

In the *anatidæ* the gizzard is peculiarly strong and muscular; but amazingly so in the tribe of diving ducks that feed on shell-fish, which they obtain by diving in the sea, and about the mouths of rivers. The shells are ground and crushed into fragments by their powerful gizzards; and none but the diving ducks are domesticated.

The best methods of administering the Medicine to the feathered tribe is by bolus, or pill; so easily prepared by mixing the determinate quantity of the Medicine, as directed in the Table of Treatment, just before using, with the best flour, rolling the little spheres in dry flour or oatmeal thereafter, and flinging them to the fowls, mixed with a few others of the like size, but without the Medicine—and they will be picked up indiscriminately. Sometimes, without taking this trouble, you have only to dip and soak some grains of corn in the allotted dose of Liquid Medicine, until it be completely dried up by infiltration into the pickles; when they can be thrown down in a convenient corner, before the diseased biped, and will generally be swallowed at once. If the fowl should refuse to eat, and reject the bolus, pill, or steeped grain—then a weak solution, containing the prescribed dose, can be introduced by the mouth or bill. If the bill be kept closed thereafter, the fowl will readily swallow it. The Lotion and Salves will be best applied to the biped race with the assistance of a camel-hair pencil.

Ducks, geese, and swans have certain qualities in common.

The Diseases of Domestic Poultry.

The medical treatment of domestic poultry is both delicate and difficult. The ailments of fowls is generally traced to mismanagement; to improper feeding; a deficiency of water; a deficiency of lime in the soil, when not supplied to them,

by mixing the emptied egg-shells with their food, or supplying an equivalent, such as dried and powdered slaked lime, gravel, or ashes; by deprivation of fresh vegetables in plenty; foul and ill-ventilated poultry houses—for these, if perfect for certain purposes, ought to be both warmed and ventilated; want of sufficient range for exercise; and other generating causes; which, to the experienced, will readily suggest themselves.

The most common ailments of domestic poultry are the following:—

APOPLEXY.—The attack is without warning. This often occurs from overfeeding and cramming—a barbarous practice—and from want of sufficient exercise. If the bird should appear dull and moping, at once administer a dose of the Antiseptic Medicine, in bolus, or pill, or steeped grain, as directed in the Table of Treatment.

INFLAMMATION OF THE MUCOUS MEMBRANE OF THE INTESTINAL CANAL, AND ITS SUBSTANCE (*Enteritis*).—This disease is attended with purging; and the evacuations, if neglected, become tinged with blood; and if treatment be not resorted to in time, death will ensue.

Treatment: Administer at once a dose of the Medicine in bolus, pill, or steeped grain, as prescribed in the Table of Treatment, and repeat it at longer or shorter intervals, as the urgency of the symptoms dictate.

INFLAMMATION OF THE PERITONEUM (*Peritonitis*).—Here the bird evidently appears to droop; refuses food; retires quietly to its roost; and is found dead in the morning.

Treatment: The moment the suspicious symptoms appear, administer at once a dose of the Medicine, in bolus, or pill, or steeped grain (see Table of Treatment); and repeat the dose if relief be not obtained within a few hours. This disease is frequently occasioned by improper food.

INFLAMMATION OF THE TRACHEA, OR WINDPIPE (*Croup*, or *Gapes*).—This is a catarrhal affection, with a defluxion from the nostrils, watery eyes, change of voice, and loss of appetite, with dulness. This disease runs a rapid course; and, if judicious treatment be neglected, the trachea will be found replete with worms an inch and a half in length, embedded in slimy mucus.

Treatment: On perceiving the first suspicious symptom, administer the Antiseptic Pill or Bolus (see Table of Treatment),

and repeat the dose at short intervals, till relief be obtained. (See Table of Treatment.) If the worms should have appeared in the trachea before the Antiseptic Treatment has been resorted to (for timely treatment would have prevented this), trim a feather neatly, introduce it into the trachea or windpipe, turn it round once or twice, and then draw it out. If repeated, the worms will be found adhering to it, attached by the slimy mucus, at nearly every trial; and they may thus be dislodged, and the fowl relieved of this torment.

Another cure for this disease, and mode of administering the Medicine—and which is recommended in the brief introduction—may be tried on all. It is easily administered by this method, though the fowls occasionally seem to discover the stratagem, and reject it; when recourse must be had to the Antiseptic Pill or Bolus. Still, let a handful of grain be dipped in the Antiseptic Medicine, and dried; which, being odourless, is sometimes picked up and swallowed on the instant by the unsuspecting bird. But, though this stratagem should succeed, we never can apportion the quantity of the Medicine so certainly, and make so sure that the dose—neither more nor less—has been swallowed, as when we administer the pills or bolus—one or more—containing each a determinate quantity of the Remedy.

INFLAMMATION OF THE LUNGS (*Pneumonitis*).—Symptoms: Quick breathing; audible rattle; dulness; ruffled plumage; vacant eye; indisposition to move.

Treatment: Do not lose a moment in administering the Medicine by pill or bolus, or by offering steeped grain, if the animal will swallow either. This is a deadly disease; the bronchial tubes, in the fowl, being generally first affected.

THE PIP, OR THRUSH, OR FROG, OR SORE MOUTH (*Aphtha*).—This disease is marked by minute white ulcer spots on the tongue, and around the mouth and palate; and, if neglected, extending down the gullet—the ulcerations resembling small particles of curdled milk. If it should not be arrested by timely treatment in its progress downwards, the disease will speedily prove fatal. The symptoms are sometimes held to be tokens of the derangement of the mucous membrane of the intestinal canal, and symptomatic; and not, in every case, an idiopathic malady.

Symptoms: A thickening of the membranous lining of the

tongue and palate, causing an impediment to free respiration ; gasping for breath ; ruffled plumage ; moping ; failing appetite ; prevailing fever.

Treatment : On detecting the first symptom, administer the Medicine in pill, or bolus, or steeped grain ; and continue it as a constitutional dose at intervals, guided by the urgency of the symptoms, until relief be obtained.

ASTHMA.—The presence of this disease is evidenced by difficulty of breathing and wheezing, and a rattling noise on inspiration, arising from a thickening of the bronchial tubes from previous inflammation ; and, it may be, in neglected cases, accompanied by an alteration, or destruction of a portion of the cellular tissue of the lungs.

Treatment : If this disease be incurable, the sufferings of the biped sufferer may be palliated so long as to allow time for getting into tolerable condition ; when the flesh, if the disease should have been timeously arrested, will not be valueless. With this view, let the Medicine be administered as a constitutional remedy (see Table of Treatment), in pill, or bolus, or steeped grain, as may be found most convenient and suitable.

MOULTING.—The administering of the Medicine as a constitutional dose, will, on all occasions, be found to afford timely aid to nature in the moulting process. There is often a deficiency of vital energy, and the Medicine, judiciously administered in pill, bolus, or steeped grain (see Table of Treatment), will promote vigorous functional action, and stimulate the secretories in the accomplishment of this natural process. We need scarcely repeat our counsel regarding judicious feeding ; ample supplies of water ; gravel, ashes, and fresh vegetables ; necessary warmth, with ventilation and cleanliness ; with freedom of range and exercise. Fowls thrive best on a dry site ; and a dusting place should ever be provided them, where they can roll about, flutter, and clean their plumage—thus freeing themselves from unhealthy scaling of the skin, and intrusive vermin.

Finally, we would respectfully request the attention of our readers to our article on Milk and Flesh Production, under Class II., explaining the reciprocal action—external and internal—of the Antiseptic Remedy. After an attentive perusal and consideration of this important portion of this volume, and of such general

application, we do not think it will be difficult to persuade the keepers of domestic poultry—whether on a small or a large scale—to employ the Antiseptic Medicine—not only to assist moulting, but with a view to stimulate functional action, and increase the number of eggs at the same time, by preserving the fowl in health and vigour—thus mightily improving their flavour and quality as a common necessary, and, with so very many, an indispensable luxury.

THE SILK MANUFACTURE.

THE SILK WORM.

THE Author of this volume, and that on the Diseases of Human Beings, has given much attention to the natural history, breeding, and rearing of the Silk Worm, and to the cheap production of Floss Silk in unlimited quantity in this country. He therefore thinks it not out of place to notice the subject here, for the following reasons.

One principal objection to the pursuit of this industry in this country has been—most ignorantly—held to be the hostility of the climatic influences. Another, that disease so frequently supervened, as to render the adventure perilous. And another still,—that so many of the little industrial workers periodically perished by the consequent endemic or epidemical causes,—seemingly oblivious, of this natural fact, that the very same might be predicated of the adventure in all countries,—from the invariable attendance of some discouraging operative cause, climatic, or incidental. Those who have given their attention to this subject, and have had the advantage of an extensive field of observation—including experience in many countries and climates—could conscientiously remove their groundless apprehensions on that score.

But under careful management, and by the employment of efficient and inexpensive expedients, the death-rate from climatic influences could be reduced to a minimum; thus rendering this industrial employment an attractive and elegant pastime in the hands of the amateur, and a highly remunerative occupation when followed out as an everyday employment and means of subsistence.

But success, in any country, will mainly depend on the knowledge of *how to medicate* to these little workers, so as to

prevent disease, and to apply a timely curative on every occasion: and this knowledge—the result of matured experiment and experience—may be truly said, in spite of its undeniable importance, to be still in its infancy.

Unthinking and inconsiderate men may find that they have given it the go-bye too long—if the subject ever, for a moment, seriously occupied their attention; and, if so, may have been summarily classed under the head of the inconsiderable and insignificant—these perfunctory experimentalists and superficial thinkers being usually blinded to the immense importance of the subject by some dreamy, misguiding fallacious estimate of the individual insignificance of the tiny entities concerned—though the producers of inestimable wealth in the most favoured climates in the world; blinded, perhaps, by the facility of their reproduction in countless millions, yet unmindful of the fact that the universal recognition and adoption of a Theory and Practice, capable of maintaining these tiny workers in vigour during *the few busy days* of productive industry which renders their insect existence valuable (if adopted into practice, and the recognition and adoption estimated at the true value, wherever the busy silk worm plies her magic industry over the surface of the globe), would be the means of adding golden millions to the aggregate wealth of the community of nations.

The author has matured a New Theory and Practice of medicating to the silk worm, which cannot fail to realise all that the most ardent friend of industrial progress and improvement could reasonably desire or anticipate; and he will be ready, at all times, to respond to enquiries in writing, addressed to him by parties extensively engaged in the silk trade, or, in the rearing and breeding of the silk worm.

The exhibition of his New Theory and Practice is not limited to soil or climate; and it can afford to repose on the certainty, that wherever the sun shines—whether on a temperate or tropical climate—it will be enabled, equally, to add materially to the wealth and resources of any country blessed with the mainstay of an industrious people.

ANTISEPTIC TREATMENT;

INTERNAL, EXTERNAL, AND GENERAL.

IN our Preliminary Review of Organisation and Functional Development, we have shown that in extreme abstraction, every animal may be considered as a nutritive tube, open at the extremities.

In the present volume we have shown that, were it possible to remove the earth of the bones, the muscular fibre, the nervous matter, and the fat from the soft parts, to empty the vessels, and to carry off the fluids generally, the size and figure of the body would remain nearly unchanged; the enamel of the teeth being the only solid in which membrane has not been detected.

The membrane which lines this tube is continuous with the skin which covers the external surface of the body; and between them are placed the several organs whose combined action serves to carry on the life of the individual.

The internal treatment is intended to act on the absorbents which line the surface of the internal nutritive tube and its connections; and the external treatment, in like manner, operates on the external covering of the body—the skin—with its associate system of glands and absorbents.

In our general treatment, the Antiseptic Remedy may be used internally and externally at the same time in some cases, though applied only in one way in others.

The object to be attained by the internal treatment is to enable the system to absorb the solution to satiety; thus arresting morbid fermentive and inflammatory action by its inherent affinity for caloric, and freeing it from the disturbance occasioned by the presence of morbid matter, by its neutralising, absorbent, and refrigerant action throughout the body, in every part.

By the external treatment, we succeed in diverting the superabundant caloric from the interior to the surface of the body, enabling it to pass freely through the exhalants of the skin; whilst we stimulate their action and open the pores by the employment of topical friction. The exuded matter which chokes, or lutes up the pores of the skin, becomes dissolved by the application of the Lotion with friction; and thus a free passage is opened up for the caloric passing from the interior of the body outwards.

By such means, what we fail to attain by the internal, we accomplish by the external treatment. Where the internal treatment is distinctly recommended, a corresponding reference will be made to the Table of Treatment, the Antiseptic Medicine, and the General and Particular Instructions for Use, and to special illustrative cases, &c., in the Appendix.

The Table of Antiseptic Treatment will be inserted here, with such modifications and additions as suggest themselves, in adopting the familiar instructions therein contained to the treatment of the Diseases of Inferior Animals.

TABLE OF INTERNAL TREATMENT.

THE ANTISEPTIC MEDICINE: .

General Instructions for Use.

I.—Commence with the dose ordered under each separate head, including Class I., Cattle; Class II., Horses; Class III., Sheep; Class IV., Pigs; Class V., Dogs; Class VI., Poultry.

II.—If, when taken in these proportions, it should act as an aperient,—reduce,—if not, increase the dose, until the bowels be slightly acted upon; then reduce the quantity just sufficient to avoid purging, unless there be an express instruction to the contrary in the directions for treatment under the several diseases prescribed for in the course of this work.

III.—It is better to begin below and gradually increase the dose, than exceed at first and then reduce; as the system will not absorb and retain beyond its requirements.

THE ANTISEPTIC ALTERNATIVE.—The Antiseptic Medicine acts as a powerful alterative, correcting immediately a depraved

state of the fluids, and restoring a normal and healthful balance between secretion and absorption. In administering dose or Injection, use Read's Stomach and Enema Pump on all occasions, for the reasons stated below.

CLASS I.—THE HORSE.

Commence with :—

	FOR SMALL SIZE.	FOR LARGE SIZE.
For Foals	{ $\frac{1}{2}$ wine glass full to pint water.	{ 1 wine glass full to 1 pint water.
„ Two-year Olds. .	{ 1 wine glass full to 1 pint water.	{ 2 wine glasses full to 1 pint water.
„ Three-year Olds.	{ 2 wine glasses full to 1 quart water.	{ $\frac{1}{2}$ pint to proportionate quantity of water.
„ Adult Horses ...	{ $\frac{1}{2}$ pint to proportionate quantity of water.	{ $\frac{1}{2}$ to 1 pint to a proportion- ate quantity of water.

In medicating to the horse, as well as in cattle practice (see Injection, Class II., Cattle Practice, Table of Treatment), this method of administering medicine has been too long neglected, as a certain means of hastening the speedy evacuation of the bowels, especially in inflammatory diseases, and all urgent cases. By means of Read's Stomach and Enema Pump any required volume can be introduced into the stomach in a very short time. In all inflammatory cases the injection must be of a soothing nature; and must, whilst containing the prescribed dose of Medicine, be prepared, thicker or thinner,—depending on the presence or absence of any disposition to excessive purging; not more than a quart should be thrown up at a time to be retained, in case it should be returned; and the instrument should be very gently introduced and the fluid thrown up gently, so as not to disturb or frighten the animal. In the ordinary case, from two to three quarts of warm water must be used. In a purgative or relaxing injection, the gruel being substituted thicker or thinner according to the excess of irritability, or the presence or absence of costiveness or relaxation.

In all cases of debility medicine ought to be administered in a fluid state; and on all occasions its operation will be more speedy; as a ball, or solid dose must, before acting, be dissolved in

the stomach. If a horn—the ancient method—should be adhered to, in the absence of the stomach pump (Read's), the noose of a halter must be introduced into the mouth, and the head elevated considerably higher for the delivery of a ball, by means of a stable fork; the surgeon, standing on a pail or stable basket, on the off-side of the horse,—drawing out the tongue with the left hand,—the right hand then gently introducing the horn into the mouth, over the tongue—and, by a dexterous turn, emptying all the liquid contents of the horn into the back part of the mouth; the horn is then gently withdrawn, and the tongue loosened, and the greater portion of the fluid must be swallowed; and the head must be kept up till the whole be swallowed. If the horse should obstinately retain any portion in his mouth, a quick and violent slap on the muzzle will compel him to swallow. The horn should not contain too much at a time; the horn should be introduced the proper distance into the mouth—quickly turned and withdrawn, and the tongue instantly loosened, without bruising or wounding the mouth in any degree. A bottle should never be used, for accidents may follow.

CLASS II.—CATTLE.

Commence with from a quarter to half a pint (according to size of animal) in a pint to a quart of water, or in a bran mash; calves, one wineglassful in half a pint of water or milk. And as all medicines lose their potency by continuous use, when ordered to be taken as a constitutional dose, and to be continued from day to day, they may be advantageously discontinued when necessary, and administered in courses.

INJECTION.—The importance of injections in cattle practice has not yet been sufficiently recognized or acknowledged. The intestines of cattle, although long, are not capacious when compared with those of the horse, and not irregular and cellulated as in that animal—but perfectly smooth; so that a fluid will readily pass along them, and to their full extent; and this will show the reason why we so frequently recommend it, and the propriety of having frequent recourse to this mode of administering medicine. When a soothing and emollient injection, containing the Antiseptic Refrigerant, is brought into contact with the inflamed

and irritated surface of the intestines, the consequent antiphlogistic curative action cannot be doubted. The former is a most important consideration in diarrhoea and dysentery ; and when we bear in mind the comparative insensibility of the three first stomachs in cattle, on all occasions Read's Stomach and Enema (injection) Pump should be used, which affords all practitioners the utmost advantages that can be expected,—whether from doses administered by the mouth, or injected by the anus. By means of the pump the intestines of the ox may be completely filled with refrigerant, emollient fluid, and washed thoroughly—the detergent fluid carrying along with it not only latent obstructive fecal deposit, but morbid secretions of every description,—stimulating in its passage the coats of the intestines, and carrying down and discharging the foul volume :—thus relieving the system from a fruitful cause of irritation, and very frequently aiding, by sympathy, the action of medicine taken by the mouth, with the view of discharging the contents of the connecting stomachs. In all cases of inflammatory action in the stomach or bowels—and especially in the early stages of the disease—a pailful of gruel, well-boiled, thick, and tepid, containing the regulated dose of the Antiseptic Medicine, may be thrown up with advantage two or three times a day. If the full quantity of the Antiseptic Remedy be present in the injection, it will be equally efficient chemically, though not mechanically, whether mixed with a larger or smaller volume of diluent. This remark, of course, applies equally to doses taken by the mouth ; and we must bear in mind that occasionally a large portion may fall into the capacious rumen (or first stomach), and be lost comparatively—though it may correct irregularity there, and stimulate that capacious receptacle to discharge its contents into the reticulum (or second stomach).

CLASS III.—SHEEP.

Commence with (according to size of animal) from one to two tablespoonfuls to half a pint, or a pint of water ; lambs, one teaspoonful to a wineglassful of water. And as all medicines lose their potency by continuous use, when ordered to be taken as a constitutional dose, and to be continued from day to day, they

may be advantageously discontinued, when necessary, and administered in courses.

The dose for an adult sheep is generally held to be a sixth part of that administered to a full-sized ox.

Both dose and injection may be fitly administered by Read's Stomach and Enema Pump. (See Injection under Class I., The Horse; and Class II., Cattle.)

CLASS IV.—THE PIG.

Commence with from one to two table-spoonful (according to the size of the animal) to half, or one pint of water. Young pigs, a tea-spoonful to a wine glass of water. And as all medicines lose their potency by continuous use, when ordered to be taken as a constitutional dose, and to be continued from day to day, they may be advantageously discontinued, when necessary, and administered in courses. The dose for an adult hog will be about the sixth part of that administered to a full sized ox. Both dose and injection may be fitly administered by the stomach and enema pump. (See Classes I., II., and III.)

CLASS V.—THE DOG.

Commence with—for small breeds and pups, half a tea-spoonful to a wine-glassful of water. For dogs up to twenty pounds, one tea-spoonful to two wine-glassfuls of water. For dogs of a larger size, from two to a tea-spoonful, to a wine-glassful of water. And as medicines lose their potency by continuous use, when ordered to be taken as a constitutional dose, and to be continued from day to day, they may be advantageously discontinued, when necessary, and administered in courses. The dose for an adult dog, of a large species, one to two table-spoonfuls, to two wine-glassfuls of water. Both dose and injection may be fitly administered by the stomach and enema pump, adapted for sheep (see Class III., and references); but the Medicine may also be administered by stratagem (see introduction to Class V.), as well as by several compulsory methods, if necessary (see Introduction to Class V.)

CLASS VI.—POULTRY.

Commence with—for small breeds of poultry, from two to four drops in a tea-spoonful of water; increasing the dose to twenty drops, in a proportionate quantity of water, according to size. To be repeated once or twice a day in ordinary cases, and every half-hour in urgent and dangerous cases, till relief be obtained. In this class the medicine may be administered by several methods, as directed in the Introduction to Class VI. It may be administered in soaked, or steeped grain—so many pickles containing the prescribed dose; or it may be mixed with a sufficient quantity of flour, and divided into small pills or pellets, made up at the moment wanted; and then, before drying, rolled in oatmeal, to give them a tempting flavour, and mixed with a few made up without the medicine, before throwing them down before the fowl—when they will be picked up indiscriminately. And some have even succeeded in administering the Medicine by dropping a portion of the fluid into the throat—then closing the bill tight, and passing the fore-finger down the windpipe, outside, slowly, and repeatedly till swallowed. The dose, of course, in this case, must be diluted with twenty times the volume of pure water, and administered in portions till all is swallowed. (See Introduction to Class VI.)

TABLE OF EXTERNAL TREATMENT.

THE ANTISEPTIC CLOTHS.—Whole; saturated with Lotion, full strength, to be applied over a smaller or larger surface, as circumstances may require; or perforated, to leave ulcers and malignant sores uncovered, so as to admit of the separate dressing of the wounds with the Lotion, reduced strength, at first, and with Salves No. 1, No. 2, or No. 3, as prescribed, according to the stage of the disease and supervening symptoms.

THE ANTISEPTIC SALVES.—No. 1, No. 2, and No. 3, of graduated strength, to be applied to wounds, as prescribed, according to stage of disease and supervening symptoms.

THE ANTISEPTIC BATHS.—Local: the Lotion full strength or reduced; general, as ordered.

THE ANTISEPTIC LOTION.

General Instructions for Use.

I.—We strongly recommend, in every case, a thorough purification of the skin, as a preliminary, and the removal of all effete and obstruent matter before the application of the Lotion as a remedy. (See the Antiseptic Lotion, preliminary operation.)

II.—After thorough ablution and purification, the Lotion will act freely, will infiltrate easily and thoroughly, and accomplish its appointed work as an infiltrant, discutient, deobstruent, absorbent, sudorific, and refrigerant.

THE ANTISEPTIC SOLUTION, as a deodoriser, disinfectant, and antiseptic.

The Solution is odourless and perfectly inoffensive, yet will deodorise and disinfect the foetid, sanious, and ichorous discharges of the foulest ulcers; and will disinfect and purify any foul and foetid surface, or any volume of air imprisoned in a building or apartment; it will prevent and arrest septic action in animal and vegetable substances intended for human food; and will deodorise and arrest putrefaction in decaying matter, both animal and vegetable.

On all occasions, in cattle practice, when the Lotion is employed with friction, it must be applied with the hair-glove, or flesh-brush, after the preliminary operation (See Table of Treatment, the Antiseptic Lotion, Preliminary Operation), always taking care to wash, cleanse thoroughly, and purify the hair-glove or flesh-brush every time either is used—whether in the preliminary operation, or in applying the remedy with friction. This applies to Classes I., II., IV., and V. In Class III the method is to shed, or part the wool lengthways in lines over the part or parts to which the Lotion is to be applied; and then the Lotion laid carefully into and along the parting, and firmly rubbed into the skin along the whole line; taking care, at sametime, that it shall infiltrate through the wool from parting to parting,

The method of applying the Salves No. 1, No. 2, and No. 3, as ordered, will be the same in all classes, with the exception of Class VI., Poultry, when they must be both applied with a camel-hair pencil, as directed in the Introduction to Class VI.

In sheep, they will be applied in like manner with the Lotion, where necessary.

TABLE OF GENERAL TREATMENT.

THE ANTISEPTIC INJECTION.—Our Antiseptic Lotion may be injected, with syringe, with advantage into abscess-cavities, sinus tracks, leading from abscesses, diseased bone, &c., &c., deep wounds, internal wounds, and cancers in natural cavities; and in such cases it may be reduced strength in the first instance, say one of Lotion to ten or twenty of water, increasing the strength gradually, as ordered. The Antiseptic Injection operates as a powerful detergent, deodorizer, styptic, and mild caustic, when diluted, removing dead and effete matter, deodorizing, disinfecting, and neutralizing purulent, sanious, and ichorus discharges; infiltrating into the cellular tissue, and assisting nature in the formative, healing, and restorative processes.

THE ANTISEPTIC RUBIFACIENT.—My Antiseptic Lotion, with smart friction, is an extremely useful and safe application in cases where it would be unwise and dangerous to make use of a blister to remove latent inflammation and extract the serous fluid.

THE ANTISEPTIC REFRIGERANTS AND FEBRIFUGES, and THE ANTISEPTIC LOTION, singly or combined, used internally and externally, act, together or singly, as powerful refrigerants and febrifuges; eliminating and abstracting superabundant caloric from the organs, the tissues, and the circulatory systems; thus speedily restoring the normal temperature throughout the organism.

THE ANTISEPTIC SUDORIFICS.—Our Antiseptic Medicine and Lotion, singly or combined, used internally and externally, act, together or singly, as reliable and gentle sudorifics.

THE ANTISEPTIC INFILTRANTS.—Our Antiseptic Medicine and Lotion, singly or combined, used internally and externally, act, together or singly, as powerful infiltrants, searching out morbid matter wherever situated, whether existing in minute or large quantity.

THE ANTISEPTIC DEOBSTRUENTS AND DETERGENTS, and THE ANTISEPTIC MEDICINE AND LOTION, singly or combined, used internally and externally, act, together or singly, as powerful deobstruents and efficient detergents.

I.

THE PATENT ANTISEPTIC MEDICINE.

General and Particular Instructions for Use.

The Patent Antiseptic Medicine, Lotion, Deodorising Solution, Salves, &c., &c., &c., separately or in any combination, with mechanical appliances for the prevention and cure of diseases in general to which human beings or animals are subject; for procuring isolation of infected patients in hospitals, or other infected places, without separation; and for collecting and destroying noxious or infectious influences contained in atmospheric air *before* being inhaled; also for deodorizing and disinfecting offensive and infected air when being respired from the lungs of infected patients, before it emerges into the atmosphere, enabling medical men and nurses residing in or visiting hospitals, or other infected places, to do so with comparative impunity; deodorising and disinfecting apartments, furniture, bedding, linen, wearing apparel, &c., &c., &c.

N.B.—I may, at the outset, state, once and for all, that the Antiseptic Medicine, being perfectly free from all or any deleterious matter, is a safe and harmless medicine, and therefore as suitable for the young as for adults.

I.—The proper quantity to constitute a dose, in all cases, is just so much as can be taken into the system without its acting upon the bowels as an aperient—unless there be an express instruction to the contrary in the directions for treatment under the several diseases prescribed for in the course of this work.

II.—The proper quantity for a dose, as well as the intervals between the doses, and the length of the course, or time during which the medicine may be taken continuously at one time, without laying it aside or discontinuing it for a season, must depend on the nature and stage of the disease, age, sex, habit, temperament, and constitution of the patient.

III.—The Antiseptic Medicine does not act as an aperient so long as there is morbid decomposing matter lurking in the system, ready to be acted upon, and to which it is immediately attracted; and all aperient action on the bowels is prevented or suspended by its translation to the disturbing morbid matter at the point of attraction.

IV.—If the quantity of Antiseptic Medicine taken into the

system be greater than the decomposing matter can, at once, absorb, the excess passes off by the bowels, with the excretions, as a surplusage, and without disturbance.

V.—As a rule, purging, and in all cases violent purging, should be avoided.

VI.—Small doses at short intervals are preferable to large doses at longer intervals.

VII.—The Antiseptic Medicine, when taken in the proper quantity, and at suitable intervals, procures natural motions in obstinate cases of dyspepsia, and other stomach and bowel complaints; arresting inflammatory and fermentive action in the stomach and bowels, and thus prevents unhealthy and violent purging, often attended with lanciating pains and great suffering.

VIII.—Larger doses can be taken at night than during the day, without its acting on the bowels as an aperient.

IX.—All medicines lose their potency for good by a too long and continuous use, and, in some cases, become positively injurious. It is therefore recommended, after a week's or ten days' continuous use, that it be discontinued for a few days, more or less, and then recommenced as before, if necessary.

X.—The Antiseptic Medicine should in all cases be diluted with not less than from ten to twenty times its bulk of pure water, unless otherways directed on any occasion, or by special reference to the Table of Instructions, or General and Particular Instructions for Use.

XI.—The Antiseptic Medicine acts as a gentle sudorific; promotes healthy functional action throughout, and enables the system to throw off, by the excretory organs, any latent, morbid, obstruent matter, however long and deeply secreted.

XII.—The Antiseptic Medicine makes contagious diseases non-contagious when a patient is fairly under its influence, at any stage of the disease; deodorizes and disinfects the breath and evacuations; and, therefore, the patient cannot possibly communicate disease by contagion or infection from his person, breath, or evacuations.

XIII.—By the habitual use, or by previously and casually partaking of the Antiseptic Medicine, nurses, patients, and persons residing in or visiting hospitals, or other infected places, are fortified against, and are rendered superior to, infectious or contagious influences.

THE ANTISEPTIC LOTION.

Preliminary Operations.

N.B.—The irresistible action of the Antiseptic Lotion and Medicine in abstracting superabundant caloric arises from its inherent affinity for that element; enabling it to reduce the temperature of the system generally, or of any parts affected with disease in particular—below that at which inflammatory fermentive action, or fever heat, can be generated or sustained.

Instruction for Performance of Preliminary Operations.

I.—First prepare the skin, covering the parts affected by thoroughly washing or sponging over with the Antiseptic Lotion, and continuing to rub it over with the hair-glove or flesh-brush, about five minutes, just sufficient to mix up the Lotion with the excreted matter, which it dissolves, though previously adhering to the skin and choking up the exhalants. Then wash off with clear tepid water, without soap, and rub it dry with a coarse towel; after which sponge over again with the Antiseptic Lotion, and rub it well into the skin; sponge and rub alternately, so long as it can be borne, cleansing the hair-glove or flesh-brush thoroughly on each occasion.

II.—If the caloric should rise so quickly to the surface as to cause severe irritation of the skin, wash over the part with cold water, without soap, and allow the water to evaporate—when the caloric will pass off in the form of steam or vapour. If the irritation should not be sufficiently allayed, repeat the sponging with cold water, giving time for evaporation. After this preparation, sponging with the Antiseptic and friction may be resumed and alternated till the excess of caloric be entirely abstracted.

III.—Although the Antiseptic Lotion attracts, it is a slow absorbent of caloric; hence the necessity for the frequent removal of the cloths from the parts affected, and the reason why the parts affected should not be covered over with flannel or other heavy materials, as it would prevent the escape of the caloric from the surface of the skin.

IV.—The Antiseptic Lotion, when freely applied, infiltrates into the inhalants of the skin and system by the effectual

removal of all obstructing, effete, and morbid matter. Its irresistible infiltrating power has been found inconvenient in storing, as it finds its way through stout oak casks, and even porcelain and porous glass vessels.

RESPIRATION & EVAPORATION.

Remarks on the Nature and Action of the Antiseptic Lotion.

I.—The Patent Antiseptic Lotion, when freely applied to the surface of the skin (see the Antiseptic Lotion, instructions for Preliminary Operation), quickly dissolves the excreted matter, the unevaporated residuum or sedimentary perspiration, which hermetically seals up the orifices of the exhalants of the skin, and thus prevents the free action of their excretory functions and refrigerant action; whilst the secreting or seceding action of the inhalants is impeded at the same time; and which double reciprocating action is intended by nature to aid the lungs in the equalisation of the temperature of the body.

II.—When taken internally (see Table of Internal Treatment, and the Antiseptic Medicine, General and Particular Instructions for Use), or combined with the external application (see External Treatment; the Antiseptic Lotion; and General and Particular Instructions for Use), deficient or unhealthy respiration from functional or organic derangement of the lungs yields to their separate or combined action, and we may anticipate a favourable result. If the air cells be diseased, the supply of oxygen becomes deficient; and, by the action of the circulation, the whole system, part by part, becomes poisoned in succession, in consequence of the distribution of a non-oxygenated and poisonous blood-current flowing through the arteries, and carrying slow poison to every organ of the body, instead of the refreshing and health-giving life-current of the normal circulation. The functional power of the organ becomes impaired, and congestion, with a disposition of unexpired carbonic matter, results in an immediate aggravation of disease and speedy dissolution.

III.—By the internal use of the Antiseptic Medicine, and the external use of the Antiseptic Lotion, the abstraction of super-

abundant caloric tends to reduce morbid inflammatory action, wherever situated, throughout the system—whether existing in the lungs or any other organ; whether it be glandular, or simply superficial, or indicative of deeper-seated mischief. After the symptoms moderate, or on the entire cessation of inflammatory action, wherever situated,—an opportunity will be afforded for the resumption of healthful, functional action, however feeble, whether in the lung-cells, or the skin exhalants or inhalants, which may be temporarily choked or hermetically sealed with effete or obstruct matter—the seat of disease in the one case, and of obstructed natural secretion in the other; thus effectually impeding their individual and relative functional action—inducing and aggravating the symptoms of disease, until a remedy be applied by an experienced surgeon, giving some chance and some hope of ultimate cure, however desperate and aggravated the symptoms.

IV.—We cannot do better than illustrate the action and offices of oxygen in the animal organization by showing the result of a deficient supply,—beginning at the lungs, and producing death by asphyxia.

OXYGEN.

Its Action and Offices in the Animal Frame.

I.—Death by Asphyxia is caused by preventing the access of oxygen to the lungs, which is absolutely necessary to the carrying on of the nutritive functions.

II.—It has been very lately discovered, by direct experiment, that the obstruction of air does not immediately act upon the heart,—but it continues to send *venous* blood through the arterial system. The vital functions are arrested in the following order:—At first non-aerated blood, or venous blood, passes freely through the lungs to the heart, from whence it goes to all parts of the system. It operates on the brain as a poison, rapidly suspending the sensorial functions. The capillaries (or small vessels) of the lungs next refuse to transmit non-aerated or non-oxygenated blood,—in consequence of which it is not returned to the right side of the heart, and thus vital

action ceases. In this way death is accomplished by drowning or strangulation. In all such cases death is caused by the exclusion from the lungs of free oxygen. This is the most fruitful cause of the generation of disease in the human body. It is not that there is anything poisonous in carbonic acid gas in itself, or its composition, when inhaled pure; but death is caused by the exclusion of oxygen.

III.—It is probable, when apparent death supervenes from suffocation from noxious gases, &c., &c., and *when there is no organic lesion*, that a judiciously conducted galvanic experiment might, in many cases, restore the activity of the vital functions. In the human subject, if a longitudinal incision be made, as is frequently done for aneurism, through the integuments of the neck at the outer edge of the *sterno-mastoideus* muscle, about half-way between the clavicle and the angle of the lower jaw; then, on turning over the edge of this muscle, we bring into view the throbbing carotid, on the outside of which the *par vagum* and great sympathetic nerve lie together in one sheath. Here, therefore, they may be both touched, and pressed by a blunt metallic conductor. These nerves communicate directly or indirectly with the phrenic, and the superficial nerve of the heart is sent off from the sympathetic.

IV.—Oxygenated food—such as the acid and sub-acid fruits—are supposed to reduce the animal heat. They quench the thirst, and are grateful when administered in fever cases, either in pulp or in drink. When taken in excess they produce diarrhoea—ultimately rendering the body spare and thin. A similar action is attendant on taking our Antiseptic Medicine to excess.

V.—The fire will not burn, *i.e.*, combustion cannot be continued without free oxygen; neither can the functions of life be carried on without a continuous supply of the same elements.

VI.—When the food undergoes its natural fermentation in the course of the first digestion,—it is acid or putrid, as it is destitute of, or contains a notable proportion of azoté; or, talking in a general way, as it is vegetable or animal. The materials to supply the waste of our body are entirely derived from matters introduced into the stomach; and though the air which we breathe contains oxygen and azotic gases, no part of these is retained or absorbed into any part of the

body: they are exhaled from the lungs in the form of carbonic acid and water, as well as by the skin in like manner, after they have passed through the circulation. If the exhalants of the skin be choked up with effete excretory matter, pulmonary disease is frequently generated; because the escape of carbonic acid gas, hydrogen, and other excreted matters—the *débris* of disintegrated tissues, which have served their purpose in the animal economy, and have lived and died, and therefore must be extruded or got quit of, are deposited and detained in the pores of the skin—the natural exhalants—in their passage to the surface, and prevent the performance of their office. If the excretory matter should be long detained within the body at any point, it will form abnormal growths, abscesses, tumours, congestions, concretions, &c., &c., inducing chronic disease, the result of depraved inflammatory action.

VII.—It is very plain, then, that our Lotion, with friction, relaxing the pores and disburthening the exhalants of effete excretory matter, must act powerfully in restoring free circulation throughout a section, or the entire body, as applied locally or generally; and must prove a powerful restorative in febrile or pulmonary affections, tending to allay and ultimately eradicate inflammatory action, however deep-seated or obstinate.

VIII.—Abnormal or perverted action in the second digestive process in the human organisation may and does produce disturbance and unhealthy diseased action in the system, as frequently as in the first digestive process. This may arise from deficient oxygenization of the fluids, depending on defective or impaired organic constitution, or defective functional action.

IX.—The elementary matters which enter the stomach are generally in states of combination different from those which enter into the composition of the body; and the matters excreted are generally in states of combination different from those in which they existed as a part of the body.

FEBRILE AND INFLAMMATORY ACTION.

Caused by Extremes of Temperature.

I.—Suppose the temperature of animate matter in healthy action to be fixed at any given number of degrees, and that, in accordance with inherent normal, functional, and chemical changes, surplus caloric be liberated by the lungs and exhalants as it is generated,—ever preserving a regulated pressure throughout the organism,—the lungs and exhalants acting as escape or safety valves do in the steam boiler,—everything will go well, and there will be neither obstruction nor congestion.

But when generated more quickly, or attaining a greater pressure than nature demands,—deficiency in functional action, in insuring a graduated and continuous escape, whether from the exhalants or the lungs, would cause congestion, exudation, and exusion and deposition of fluid, generating and aggravating febrile and inflammatory action, and determining in specific malady.

II.—Passing over any other specific cause, such as the inhalation of sporules or disease germs, floating free in the air,—we go on to premonitory colds or chills, arising from a perversion of the circulation and local or temporary stagnation; and resulting in violent antagonistic action, ending in nervous irritability; and thus producing inflammatory action and fever.

Excessive cold, whether operating directly, or by secondary action, from direct contact with a cold atmosphere,—or indirectly by contact with damp air or clothing,—causing evaporation and abstraction of caloric—contracts and closes the pores of the skin, and causes a violent reaction, generating fever. This is the violent struggle of nature to restore the normal temperature, and the wonted circulatory action and equilibrium throughout the organism.

III.—In spotted and eruptive fevers, the spots and eruptions are no doubt caused by the violent struggle of imprisoned caloric and waste fluids to reach the surface,—resulting in abrasion, irritation, and lesion of the delicate mouths of the exhalants, which partake of the high degree of irritability which distinguishes their internal membranes: enabling them to contract with corresponding force, and thus propel the waste fluids of the body to the surface with the greater facility.

ANTISEPTIC SALVES.

For Cuts, Abrasions, Scalds, Burns, Running Ulcers, Sprains, &c., &c.

INSTRUCTIONS FOR USE.

I.—The Antiseptic Salves are numbered No. 1, No 2, and No. 3, carefully prepared from the Antiseptic Lotion, of different strengths, to be used under varying circumstances, according to the nature, extent, and symptoms of the cases to which they may be applied.

Cuts and Abrasions.

I.—When the Antiseptic Salve is applied to open sores, such as cuts and abrasions, it causes severe smarting pain in the part affected, which only continues for a few minutes, leaving it thenceforth free from pain; when the wound quickly heals without suppuration, inconvenience, or smarting.

II.—The Antiseptic Salve, by abstracting the caloric, reduces the temperature below the point at which inflammatory action can exist. It forms a film, acting as a temporary skin over the wound, by which the atmospheric air is excluded; thus artificially aiding nature:—the wound finally becomes cicatrised, and the part restored to its normal condition.

Burns and Scalds.

I.—When immediately applied to burns and scalds, the Antiseptic Salve quickly and effectually abstracts the caloric in excess, or inflammatory action resulting from recent contact with fire, from the part or parts affected; the puffy swelling subsides, and the part resumes its normal healthy condition, without losing the skin.

II.—When the skin is destroyed by the action of the fire, the Antiseptic Salve speedily abstracts the excess of caloric, and allays the inflammatory action—covering the part over with a fine film or artificial skin, by which the irritating influence of the atmospheric air is excluded; and, as in cuts, the natural curative process is aided, and the wound is skinned over and healed quickly and quietly, without throbbing or other unnatural or unusual pain.

THE ANTISEPTIC CLOTHS,

Whole and Perforated.

This is the mode of applying the Antiseptic Lotion externally in inflammatory diseases, and should be varied according to the nature and circumstances of the case. It is applicable to cases where the inflammatory action or excess of caloric is found near the surface, and where friction would be injurious, as in the case of erysipelas, inflammation in the eyes, or other tender parts. But where the inflammatory action is deep-seated, the persevering use of the Antiseptic Cloth has been found to act with surprising power.

INSTRUCTIONS FOR USE.

I.—The texture for Antiseptic Cloths should be light, soft, and open calico or cotton cloth, because it is sooner cooled and the caloric shaken out of it, than if a thick and close material were employed.

II.—Saturate the cloth with the Antiseptic Lotion; then squeeze or lightly wring out, sufficient to prevent dripping. When thus prepared it is termed an Antiseptic Cloth.

III.—The Antiseptic Lotion used for saturating the cloths should be of the full strength, except where otherwise directed.

IV.—Cloths saturated with the Antiseptic Lotion, *full strength*, do not require to be refreshed after each application, and after cooling and shaking out the caloric—as they absorb moisture from the atmosphere in the process of shaking. Refresh with Lotion after ten or twenty applications.

V.—If the cloths be saturated with *diluted* Antiseptic Lotion, they should be refreshed after two or three applications; and, in both cases, cool and shake out caloric before refreshing.

VI.—The Antiseptic 56 T. contains 25 per cent. of water; and it will not part with its water at a less temperature than 112 degrees. If this 25 per cent of water be dried off by the fire, and the cloth be shaken in the air, it will absorb moisture from the atmosphere with avidity, till it has regained the same per centage as was dried off by the fire.

VII.—Therefore, if economy be an object, the cloths may be preserved for use at any future time, if stored in a porcelain or glass vessel.

VIII.—The Antiseptic does not injure, but preserves cotton, linen, silk, or woollen cloth, and even the hair, when damped with it.

IX.—The Antiseptic Cloths are, as a rule, more effective in chronic cases, when the inflammation is intense, and the skin too tender or sensitive to bear friction.

X.—When some vital organ is seriously affected, and immediate relief is imperative, the following method should be adopted:—Saturate two cloths sufficiently large to cover the surrounding parts, as well the part affected, when folded double. When the first cloth has been applied five minutes, remove it and apply the other. Then shake the one taken off in the cold air three or four minutes, and thereafter apply it; then shake the other, just as before, and repeat till the symptoms have subsided.

XI.—If the caloric rise too quick and fierce to the surface, and the skin becomes painfully irritated, wash over with cold water—allowing time for evaporation, as directed under head 'The Antiseptic Lotion, Instruction II. Then re-commence operations with the Antiseptic Cloths as before, until the superabundant caloric be abstracted, and the inflammatory action cease.

XII.—In chronic cases which are deep-seated and stubborn, and where the skin will bear it, the application of the cloths and friction may be adopted alternately with great benefit.

XIII.—The Antiseptic Lotion instantly deodorises and disinfects the skin of infected patients, infected bedding, linen, and wearing apparel.

XIV.—When the Antiseptic Cloths and evaporation, as directed above (see the Antiseptic Lotion, Preliminary Operation) have to a great extent abated the irritation of the skin, and made friction of the hand bearable, it may be alternated with the Antiseptic Cloths until the second cloth be made ready for use; and should irritation and tenderness of the skin reappear at any time, recourse may be had again to bathing with cold water and evaporation, till the inflammatory action and irritability have moderated.

THE PATENT AUXILIARY LUNG RESPIRATOR,

For Purifying and Disinfecting Atmospheric Air when being inhaled, either directly from the atmosphere, or when drawn through the Patent Antiseptic Filters, for deodorising, disinfecting, and purifying atmospheric air from infectious influences.

The Patent Auxiliary Lung Respirator destroys infectious influence, and purifies atmospheric air; rendering it fit for breathing purposes and the sustentation of healthy existence.

The Mechanical Apparatus consists of an Auxiliary Lung Respirator, which is made of any suitable conformation, to suit cattle or human beings. In the muzzle or pad for the mouth or nose, we punch two or more holes, sufficiently large to ensure easy breathing. To each hole we attach a tube and valve, with couplings for attaching thereto tubing of any required length; one of the valves is fixed to open inwards *towards* the mouth, the other to open outwards *from* the mouth, the air-supply valve being opened by inhalation and closed by respiration. The outlet valve is opened by respiration and closed by inhalation. For animals, a bag or receiver is fastened under the end of the muzzle to receive the saliva, with an outlet for its removal. Tubes of any required length are coupled to the supply and outlet valves, by which the pure air may be supplied direct to, and the respired air conveyed direct from the respiratory organs any distance from the patient or hospital.

The Patent Antiseptic Disinfecting Filter and Auxiliary Lung Respirator procures isolation without separation in hospitals, barracks, holds of ships, and other crowded and infected places, destroying infectious influence in atmospheric air, and purifying the same for inhalation. The Patentee also prepares, makes, and supplies sea air to hospitals and other infected places at any moment.

The Improved Disinfecting Filter is attached, or not, to a reserve chamber, from which the respiratory organs are supplied with disinfected air, and consists of a box sufficiently large to supply one or more subjects; in which is inserted a number of tubes which conduct the air through the disinfecting solution, after which it rises through charcoal, coke, or other material, saturated with the same solutions, and through a sieve or perforated plate into the reserve chamber. We also

employ, when desired, another filter, of similar construction to the above, for disinfecting the exhaled air before it passes into the atmosphere.

For human beings we have also a Self-acting Respirator for the nostrils, constructed similarly to the one before described, and which may be used either separately or combined with the one for the mouth; or we put two separate tubes in the nostrils for the same purpose. Medicating and Disinfecting Filters are inserted in the supply tube, whether for the mouth or nose; the latter forming an important desideratum to medical men and others visiting hospitals and other places infected by the presence of decomposed or decomposing animal or vegetable matter.

As an illustration, we may suppose an emigrant vessel to be supplied with the Lung Respirator and accompanying apparatus. In rough weather, by using this invention, the emigrant or emigrants (although the hatches were battened down) would, one and all, be enabled to breathe the pure sea air from outside the vessel; and the foul respired air from the lungs of the whole would be conveyed direct to the outside of the vessel above decks; and the great suffering and mortality consequent on breathing respired and poisoned air avoided—the passengers and crew being placed in a position in which they are not dependent upon the confined air within the vessel for breathing purposes, and the temporary sustentation of life.

In the climate of Great Britain and the Channel Islands protection against climatic influences is the great desideratum. The fogs and damp air of England are proverbial, and their same cosmopolitan; and their consequences—the frequency of pulmonary affections and endemic consumption throughout the mother country—most families know to their sorrow.

Under the circumstances, it would be nothing short of suicidal madness to disregard such a certain protector as we have in the Patent Lung Respirator and appliances, and to neglect bringing it into general use during the inclement seasons of winter, spring, and autumn, when so many fall victims to climatic influences; more especially the moment we can perceive the slightest indication of organic or functional disorder of the pulmonary organs.

Great pains have been taken in constructing the Respirators for human beings, whether adapted to the mouth or nostrils, to study utility in every respect; but we have taken care, at the

same time, to make them sightly, as well as commodious; so that they can be worn by old as well as by young; by the man of fashion, or the less pretending, without remark or inconvenience; and they will soon become so common as to attract no more notice than the ordinary Respirator.

HEAT OR CALORIC, INFLAMMATORY ACTION, AND FEVER.

Before approaching the Diseases of Nutrition, we shall give a familiar exposition of our views on Heat or Caloric, Inflammatory Action, and the Phenomena of Fever; and we shall thereafter proceed to consider the different disorders which fall under the general class Febrile or Inflammatory, in their acute, regular, distinct, and intermittent forms, as distinguished by their various symptoms, and the treatment proper to each.

Heat or Caloric

Is supposed to be either a distinct substance, universally pervading nature and penetrating the particles or pores of bodies, or a property of matter consisting in a specific or peculiar motion or vibration of the particles of bodies. We know that heat is evolved from bodies during chemical combinations, and we know that it may be produced by friction; and whatever is capable of producing motion in the particles of any mass of matter excites heat, and heat continues to be evolved from any body subjected to friction, so long as applied, and the texture and form of the body remains unaltered. According as the vibratory motion of the particles of bodies is more or less intense, a higher or a lower temperature is produced. Caloric may exist in combination, or at liberty; and when at liberty, or uncombined, it is sensible to our organs, and indicated by the thermometer.

In treating of Inflammation and Inflammatory Action, we show how the attrition or friction produced by the spasmodic and violent propulsion of the blood-current along the vessels of reduced calibre, from the influence of cold or other operative constrictive affection, causing constrictive resistance, may generate a superabundance of caloric, increasing the volume and aggravating febrile and inflammatory action; and febrile

and inflammatory action will sustain and increase nervous irritability; so that no time should be lost in endeavouring to procure depletory relief by attracting the superabundant caloric to the surface of the body by the application of the Antiseptic Refrigerant Lotion, with friction, whether the inflammatory action be local or general, as in acute, remittent, or intermittent fever. (See Table of Treatment; Patent Antiseptic Medicine, and General and Particular Instructions for Use, &c.; the Antiseptic Lotion, &c.; and the Analytical Index.)

Inflammation.

When inflammation takes place near the surface of the body we have heat and pain, more or less swelling, hardness, and redness. When heat and pain discover their presence within, we conclude that they exist in inflamed parts which lie beyond the reach of vision. Inflammation generally appears at a point, spreading from a centre by continued sympathy and attendant irritation. Inflammation, therefore, depends on increased and abnormal action of the vessels, dependent on nervous irritability directed on that point, and propagated thence by direct influence and by sympathy, producing distension, irritation, and consequent exusion, separating from the blood certain constituent ingredients or substances on the internal surface of the inflamed parts, even the *liquor sanguinis* itself; and the opposite sides of the cellular tissues receives the effused fluid, inducing, by contact, unhealthy adhesion—the increased bulk of the inflamed part being caused by the effusion and its infiltration into the surrounding tissue, before it can find an escape by topical suppuration.

Accompanying the swelling we have a sense of heat, caused by the increased impetus and determination of blood to the part; or when extended throughout the system, dependent on an accumulation of blood, arising from some obstructive cause, whether as regards the casual *crisis*, or admixture, or constitution of the current of the blood itself, causing a temporary increase in the volume of the blood by increasing the volume of caloric, from the resistance offered to the passage of the blood by the vessels which contain it; or the blood may become, from pre-existing causes, more viscid, ropy, and sizey; so that, in either case, the primary cause of the obstruction would be seated in the nature or constitution of the blood itself, and

its misdirection by existing disturbances of the nervous momentum, causing constrictive resistance of the vessels of the affected part, or throughout the system, as it may be, generating, as a natural consequence, an increased and increasing volume of caloric, and causing a progressive aggravation of the disorder.

It is easy to see how the application of cold, by inducing temporary constriction of the vessels, may lead to a violent spasmodic reaction, propelling the blood-current with violence through the vessels of reduced calibre; generating superabundant caloric by the abnormal attrition and friction; producing increasing inflammatory action and fever throughout the entire organism.

Fever

Is a disease to which all are subject; yet it is most difficult to define.

Fever is generally announced by languor and debility, a sensation of coldness experienced down the back, rigour, shivering, and general chilliness, followed by a frequent pulse, and a great increase in the heat of the body. The strength of the limbs is diminished, with more or less mental disturbance; but no local disease. The symptoms increase in violence towards evening. Such are the phenomena of fevers in their acute, regular, and distinct forms.

Fever would appear to be an effort of nature to expel something hurtful from the body, or to restore the equilibrium of the system. The first view derives a strong collateral support from the history of eruptive fevers, in which we see noxious morbid matter exciting general commotion, multiplying itself as a ferment, and at length thrown off by the surface by direct depuration.

No reasonable doubt can be entertained that the brain is truly the *primum mobile*, closely associated with the heart, the lungs, the stomach, and extreme vessels; and we have elsewhere shown, in describing death by asphyxia, that it is primarily affected by a depravation of the fluids; and that the non-oxygenated blood first acts as a poison directly on the brain, paralysing the normal action of the entire organism. The nervous power is distributed from this point, being propagated from thence along the nervous tissues throughout the system. The nervous power is an inherent principle, and never exhausted,

requiring no renewal while life exists, though it may be acted on and excited by stimuli ; and so indestructible that it may be re-excited into action, in nervous substance, even after dissolution, by the agency of galvanism.

The proximate causes of fever, other than a pre-existing unhealthy state of the fluids, may be various ; depending on the application of certain exciting influences, sedative powers, or noxious agencies, operating from without or from within, as contagion, miasm, cold, fear, improper dietary, poisonous substances taken into the system, and many other remote causes ; and these act directly on the nervous system throughout, causing general debility and diminished energy, followed by a violent, and often continued, effort of nature to eject the disturbing agent or repel the disturbing influence, and so restore normal action, often determining in a relaxation of the excretories : and these perspiratory paroxysms are not unfrequently regarded as the prelude to returning health ; the secretory functions depending entirely on the nervous influence, even to the evolution of caloric from arterial blood. Interruption, congestion, or an irregular distribution of the nervous influence to the organs, the lungs, the stomach, &c., &c., immediately induces disturbance or interruption of the vital functions. Although galvanism is capable of performing all the functions of the nervous influence in the animal economy, it cannot excite the functions of animal life—unless when acting on parts endowed with the living principle, like the nervous tissue, after dissolution. The galvanic energy, supplying the place of the nervous influence, enables the stomach, otherwise inactive, to digest food as usual, so that analogy between the two powers is evident ; they are acting as a convenient substitute the one for the other.

These unfriendly external and internal agencies act directly on the nervous system, producing complicated disturbance of action and debility ; succeeded by nervous congestion, increasing irritability, and violent spasmodic counteraction and irritation of texture, so modifying vital influences—though sometimes without any return of torpor or quietude whatever—as to present one continued train of prefatural action and exhaustion, till the system be completely worn out.

Fever must not be confounded with local inflammation—the idiopathic with the symptomatic affection.

Fever is commonly a symptom or sequel of organic inflammation and organic inflammation is not unfrequently a sequel of fever; but examples are perpetually occurring, establishing the existence of fever as an idiopathic malady affecting the whole system—the head, trunk of the body, and the extremities, the circulation, the absorption, and the nervous system, the skin, the muscular fibres and the membranes, the body and the mind, though not affecting the various parts of the system uniformly and equally? but, on the contrary, sometimes one part is much affected in proportion to the affection of another part.

Fever is ever attended by depraved or misdirected nervous irritability, arising from hostile influences acting on the nervous system from without or from within. Thus febrile and inflammatory action may be generated in twenty-four hours; or such hostile influence may have been operating steadily and stealthily throughout the organism, inducing a depravation of the humours and blood-current, till the febrile action shall have culminated in specific or idiopathic disease.

To illustrate the above, we insert the following extract from our *Treatise on Human Beings in Fever, Variola, &c.*

Fever, so universally prevalent, and from which none are exempt when suffering under acute diseases; and to whose ravages so many amongst the working classes fall victims in crowded cities and towns; but a disease which is, nevertheless, no respecter of persons in one or other of its forms—extending its deadly and corrupting influence to the palace and the cottage:—now infolding in its foul embrace the gartered prince, and then the humble, wayfaring beggar, and inflicting on either, indifferently, a like amount of pain and suffering:—a disease to which all are subject, whether it may exist as an idiopathic affection, or symptomatic of some approaching, or pre-existing disorder—demands the especial attention of the advocate of the Antiseptic Theory of Medicine and Surgery.

This disorder, so prevalent and deadly, is caused by the generation and accumulation of superabundant caloric in the human frame—depending on a supervening exciting cause, generating excessive or misdirected nervous irritability: disturbing functional action; depraving the character and increasing the volume of the blood current, by expansion, to

such an extent as very frequently to entail immediate and fatal consequences, unless a timely remedy be applied. The increase of the blood-volume, and the resistance offered to its progress by the constrictive action of the blood-vessels, will, every hour and every minute, increase the evil, and multiply the danger; and not a moment must be lost in eliminating caloric from the circulatory and entire organic system, so as to strangle the disease at its birth; or if neglected too long before the remedy has been resorted to, to arrest morbid action at any stage by employing the Antiseptic Febrifuge and Alterative—all powerful in reducing inflammation, correcting the humours, and restoring healthy functional action; thus cutting off the supply of morbid matter, which would otherwise pass outwards to generate irruption; or, if the irruption should have already appeared, preventing the farther progress of the disease at any stage; arresting it instantly; and thereafter acting as a reliable purifier and restorative—reinvigorating the entire system, and insuring an uninterrupted and perfect recovery. We desire to be explicit, and to be understood as expressing ourselves positively and advisedly, and without any reservation, and to assert broadly and plainly that the Antiseptic Remedy has equal power in arresting morbid action at any stage of the disease, however alarming and aggravated the symptoms may be; and the cure is certain, unless the patient should sink from exhaustion, caused by feebleness of constitution, or from exhaustive concurrent action, depending on some pre-existing idiopathic disorder.

By the introduction, then, of this powerful, yet safe and certain antidote and remedy, preventing and exhausting any tendency to fermentive decomposition, the present theory, which teaches that certain diseases, such as fever, small-pox, measles, or, in fact, any other, must of necessity extend over a certain specified time, and pass through a given series of stages, before a cure can be effected, must now be considered as exploded and superseded by the introduction of our Antiseptic Theory into the science and practice of medicine.

In the case of SMALL-POX, the Antiseptic Medicine prevents, and also arrests this disease in any of its stages, if the same be freely administered at short intervals; and in more advanced stages at still shorter intervals, until the bowels be slightly acted upon; and if then reduced just sufficiently to keep under

purging, and continued; the disease will be certainly checked in less than twenty-four hours; and if the dose be then reduced, or given at longer intervals for two or three days, all traces of the disease will be eradicated out of the system. So that, as a result, no morbid matter will be left in the system capable of propagating or perpetuating, as is so often the case, other life-long diseases.

The indisputable fact that it is impossible to vaccinate a child effectually if a few doses of our Antiseptic Medicine be previously administered (see Appendix: Practical Illustration), is a demonstrative evidence of its power of resisting contagious morbid influence, even when infused into the system direct from the point of the lance.

If the disease should have already advanced to the suppurative stage, so soon as the Antiseptic Medicine has been administered in sufficient quantity to arrest fermentation within the system, the skin may be wetted over with a feather dipped in the Antiseptic Lotion, diluted—say a teaspoonful of Lotion to half a pint of water. This application will at once deodorise the offensive matter, and allay the itching irritation. (See Appendix: Practical Experiment in the new Skin Disease.)

It becomes especially desirable, then, and an imperative duty, to impress the public generally with a certain conviction that a melancholy and fatal error is still prevalent—in spite of recent imperfect attempts at improvement in the ordinary treatment of febrile diseases of every type. It will henceforth be culpable to allow any febrile disorder to run an inevitable course, or to advance a single stage farther, when it can be so easily prevented by impregnating the system with the Antiseptic Medicine.

It would be impossible to overestimate the value of a remedy which is armed with the inherent power of relieving the human family, in all countries and climates, of such a loathsome and oppressive accumulative burden of exhausting suffering—enabling the skilful medical attendant to arrest the progress of fevers, primary and secondary, in any of their stages, however alarming and aggravated the symptoms. Old and young, then, may, for the future, meet the attacks of disease with the calm fortitude and confident assurance resulting from the settled conviction that they, at length, possess an antidote and remedy of sufficient power to repel and resist the insidious attacks of disease; and capable of subduing its malignant action at any advanced

stage—thus speedily and certainly arresting its progress ; insuring a perfect recovery ; preventing a relapse ; and fortifying the system against future attacks.

Nevertheless, small-pox continues its ravages through the length and breadth of the land ; and it is passing strange that a learned profession should allow itself to encourage and adopt such a self-evident imposture ; and stranger still that an enlightened Government, in a civilized country, should be found not only to adopt, but to honour and reward the inventor, and force upon a free and intelligent people such an unmitigated nostrum, to be handed down to posterity, with all its accumulative mischief, under the pretence of aiding the advancement of medical science ; and most certainly the Government should lose no time in making reparation for so grave and criminal a blunder.

It is also unaccountable how the profession should have allowed the credit, strictly due to their own improved method of treating this disease, to be accredited to such a palpably unscientific invention.

But discovery has fully demonstrated that variola, or small-pox, is neither more nor less than inflammatory fermentive action generated in the system, poisoning the circulation, and determining to the surface by depuration ; and yet matter, the product of active and virulent fermentation, or decomposition, and called vaccine lymph, is employed and introduced into the system, with the view and for the purpose of warding off, or moderating, the virulence of small-pox—the base and foundation of which disease is neither more nor less than fermentive decomposition present in the circulation. Why there is just as much reason and common sense in pouring intoxicating drink down the throat of a drunken man, with the view and for the purpose of making him sober ; or as a preventive against the possibility of his making a fool of himself at any future period of his life.

However, there is now no excuse for the continuance of such a dangerous and suicidal practice as vaccination or inoculation, since a powerful, and a safe and certain antidote, or antiseptic, has been discovered, which prevents, and also arrests variola in all its stages with chemical certainty.

Vaccination is, then, a solemn farce. What ! to inoculate every innocent infant, a few weeks after its birth, with in flam

matory fermentive brute virus—the product of foul depuration ; so that if we do not change every molecule composing our frail bodies—flesh, blood, and bones—as some hold we do every seven years, we must retain the taint of brute corruption while we live ; and if we *do* change and doff every molecule of our mortal coil periodically, it is plain the boasted vaccine lymph, and every result consequent on its introduction into the system, must vanish with the last molecule of the effete body which has left us.

We know the result of casual inoculation with canine virus—the product of morbid action ; then why, in the name of reason and common sense, should we wilfully adventure to make experiments, and to inoculate our tender infants with the diseased and morbid virus of the cow ? They call this transfusion of morbid virus a triumph of science !! Does science deliberately teach, or justify, normal aberrance ?—or confusion of species ?—or justify a transfusion of corruption from the brute to the reasoning creature ? Does she teach us that the readiest way to ennoble humanity is to degrade the species to the level of the brute ?

Let us hear no more of infatuated imbeciles, industriously desiccating and embalming, with the aid of the circumambient air, inspissated cow virus, on a transparent glass receptacle—transferring it gravely and industriously from hand to hand, as they would a precious relic of inherent virtue—the pure, refined gold of scientific discovery—whereas such trophies should, with the memory of their being, be forthwith consigned to that mirrored tomb of vain conceits and national impostures which, for the sake of decency, shall be nameless.

Yet £30,000 of the people's money was presented, by a grateful country, to Dr. Jenner for the discovery of the virtue of the vaccine fluid derived from the cow ; recommended in 1798 as “ a substitute for the small-pox,” as he then declared it to be. The public was assured that “ dairymaids and cow-milkers, receiving inoculation of vaccine matter from the teats of the cow during the operation of milking, and farriers and others, receiving a similar inoculation from handling the heels of the horse, were comparatively deprived of susceptibility to small-pox.”

Unlike Dr. Jenner, I am not prepared to recommend any *substitute for small-pox*. And no thoughtful man will now be

prepared to deny that it was supremely ridiculous to suppose that any special recondite curative virtue could be concealed in horse grease ; or that Hygeia, the fabled goddess of health, could have discovered any supernatural agent in cow virus !!

The truth is that this loathsome disease has changed character, as I have already stated, not because of substituting *cow* for *human* virus, but because of the improved treatment bestowed upon it ; because of the attention to cleanliness and thorough ventilation ; above all, because of discontinuing the former suicidal practice of keeping the patient in a ferment with heavy clothing, and in a close and overheated apartment—the attendants ignorantly doing their best to aggravate febrile and inflammatory action ; instead of employing antiphlogistic treatment from the outset, and procuring thorough ventilation, to promote a cure.

Had the mode of treatment I so confidently recommended been adopted and persevered in for a succession of years, and for a much shorter period than dates from 1798, there can be no doubt that this fearful imported scourge of humanity would have disappeared from the catalogue of existing diseases ; and such a desirable result must have been realised many a day ago.

The Antiseptic Medicine should be administered on the first suspicion of the disease lurking in the system of the patient.

Should latent inflammatory action discover its presence, and headache or incipient delirium supervene, owing to the neglect of prompt action at the outset, in delaying to apply the Antiseptic Remedy—lay our Antiseptic Cloths over the head, and especially over the forehead, alternating with gentle friction over the cranium, raising or dividing the hair during the operation. (See Table of Treatment ; the Antiseptic Medicine ; and the Antiseptic Lction.)

APPENDIX.

APPENDIX.

CLASS I.—The Horse.

(1.) Glanders.

“MR. HIBBERT,

“*May 27th, 1867.*

“Sir,—I feel it to be my duty to inform you of a most extraordinary case, in which a cure has been effected by your Patent Antiseptic Medicine and Lotion. I think it deserves the more special notice, as I believe there prevails a unanimous opinion that it is positively incurable; and as the disease is infectious, the patients are invariably destroyed prematurely, without any serious attempt being made to effect a cure. Notwithstanding, having heard much of the valuable properties of your Antiseptic, I was induced to try it in a well-developed case of glanders and farcy; and I am glad to be able to state with great success—the Medicine having been freely administered two to four times a day at first, and the Lotion applied externally and copiously to the parts affected; and a weak dilution syringed up the nostrils. A perfect cure followed quickly on convalescence; and I am assured, if it were generally known, it would be especially useful. On the appearance of the ~~first~~ most reliable symptom, if prompt treatment were resorted to, I feel convinced it would frequently stamp the disease out, and thus save many valuable animals. The violence of the symptoms would be speedily subdued; and by persevering in the use of your valuable remedy, many useful animals would again become serviceable.

“Yours, &c.,

“_____”

(2.) Grease and Elephantiasis.

May 14th, 1867.

A gentleman, knowing we were in search of the worst cases to be found to experiment on, called to inform us of an extraordinary case of a dray-horse, belonging to one of our Manchester carriers, who had been summoned for working the animal. This gentleman was immediately waited upon, and requested to permit a few experiments to be made upon the animal,—being, at the

same time, assured that no injury should be done to him. The gentleman replied that he would willingly make us a present of him,—as he had had the police at him again the previous day ; the horse being at once sent up to our stable. The girth of the lower part of the leg was taken, when it was found to measure two feet six inches round, and tapered off to a point in the thigh—the lower part being greatly inflamed ; and there was a constant exusion and dripping of matter from the heel.

After washing well with warm water, and rubbing the part affected dry, the Antiseptic was freely applied, with very light friction—sponging, in fact ; and then a cotton cloth bandage, saturated with the Antiseptic Lotion, was wrapped round the foot and leg. The bandage was frequently taken off—shaken till quite cold, and reapplied. A liberal dose of the Antiseptic Medicine was then administered ; and this was repeated twice a day, as was also the dressing of the leg. At the end of four days, the inflammation being subdued, the hoof, which was before invisible, became uncovered,—showing the natural shape and size of the foot, and lower part of the leg ; but there was still left a large mass of a hard and insensible substance, the thick part commencing about six inches from the top of the foot, and terminating in the thigh. This, although as hard as bone, was, by the persevering employment of the Medicine and Lotion, reduced to a jelly-like substance in ten days—trembling with the least movement of the leg. At this stage there seemed to be some hopes of a cure being effected ; but a continued application of the Remedy, for from ten to fifteen days, seemed not to promise any further improvement. And, at this time, our groom becoming dissatisfied with an extra horse in the stable to attend to, proposed to cut the part affected, which resulted in a copious flow of as pure and healthy blood as ever came from any horse, and which greatly disappointed us, having calculated on the enlargement being filled with matter. So we held it to be a hopeless case ; but still resolved, before returning the animal, to vary the mode of treatment. First, the external application of the Lotion was discontinued,—the Medicine being administered alone ; when, on the fourth day, the hardness appeared to be returning without enlargement. Seeing this, we ordered the use of the Lotion to be recommenced, and the Medicine stopped. The result was that, in about four days, the leg was as large as when we commenced the treatment. Perceiv-

ing this, we ordered a very large dose to be administered—viz., one quart of the Medicine, with a suitable quantity of water; when, to our astonishment, next day the inflammatory exusion had disappeared, having been arrested and absorbed for the time.

By these and similar experiments, on many subjects, we confirmed and fully established the truthfulness of our anticipations as to the action, associate and reciprocal, and individual and separate, of the Medicine and Lotion, when applied combined or separately.

After this the horse was returned, although £5 was offered for him; feeling that it would not be right to make any pecuniary profit by our labours; though we profited by the opportunity offered for making some very valuable experiments.

The owner afterwards informed us, that he had the horse killed; and on opening the leg for examination, a large mass of muscle was found to be indurated, and attached to the bone of the leg; remarking, at the same time, that he had narrowly watched the experiments, and the result of our treatment, which, as a large owner of horses, greatly astonished him.

W. H.

(3.) Greasy Heel; Cracked Heel.

(1.)

“MR. HIBBERT,

“Manchester, *May 15th*, 1870.

“Sir,—For the last five months I have given a wineglassful of your Patent Antiseptic Medicine, twice a week, to the whole of my horses, as a preventive—as you call it, as a constitutional dose; and find they are very much improved by it in every way—their general health being excellent. It tends to preserve condition; and prevents any continuance of raw about them. In fact, four are now doing the work of six horses; and yet they keep in first-rate condition. In one case greasy heel, and in another case cracked heel, was completely cured with a few applications of the Patent Antiseptic Bath Solution; and the first only escaped, at the outset, being sent to the knackers.

“Your obedient servant,

“_____”

(4.) Swelling in the Legs; Cracked Heels,

(2.)

"MR. HIBBERT,

"Cheetham Hill, *June 3rd*, 1870.

"Dear Sir,—Having under my care a mare, which has, for a considerable time, been subject to swelling in the legs, cracked heels; also, a general breaking out, and skin disease, which has often, very materially, impaired her general usefulness; and being informed of the wonderful cures effected by your Antiseptic, I was induced to give it a fair trial, and am happy to bear my testimony to its value, and report the favourable result; as after a few doses—given in her drink, water (without any inconvenience)—there was a decided improvement in her general health; and the whole of her diseases gradually disappeared.

"I am, yours,

"————"

(5.) Shoulder Lameness.

Being constantly in search of exceptional subjects for experiment, our attention was drawn to a splendid-looking animal—a carriage-horse and a thorough-bred—on being informed it was lame. We had it examined immediately by a competent gentleman—a veterinary **surgeon**—who pronounced it an incurable lameness.

Deeming this a good opportunity for testing the merits of our Antiseptic Treatment—for putting it to a severe test—we purchased the horse for twenty pounds—though we learned after that he had been previously sold for two pounds; and after working the animal for two years, sold him for thirty-five guineas.

The complaint was supposed to be in the foot; but was afterwards discovered to be in the very centre of the shoulder. No symptoms of injury could be detected by rough handling; but they, at once, became evident on pressing the shoulder inward on the centre. The Antiseptic Lotion was freely applied, with severe friction, over the entire surface covering the shoulder, morning and evening; and after four applications, it was observed that the surface of the skin—especially at a certain point—had become highly sensitive, and that the slightest touch caused pain. This showed that the powerful absorbent action of the Remedy had attracted the superabundant caloric from the centre

to the surface; and in proportion as it was drawn out to the surface, the lameness disappeared. The injury being deeply seated in the shoulder, and shoulder lameness being one of the most difficult injuries to deal with by adopting the ordinary recognized methods, its successful cure in this instance proves, in a most striking manner, the amazing power of the Antiseptic Remedy in searching out, reaching, and subduing inflammatory action, however deeply seated.

W. H.

(6.) Gripes and Bellyache.

(1.)

"MR. HIBBERT,

"May 8, 1870.

"Sir,—I feel it to be due to you to inform you of a remarkable and almost immediate cure of two horses of the bellyache and severe gripes; and one of these cases was the worst I ever saw; and I have seen a great many; having for a series of years had some hundreds under my charge. We gave the animal about half a pint of your Antiseptic, in a sufficient quantity of water: and the relief was so immediate and complete, that we were truly astonished. The other case was not so bad, and was subdued in a similar manner—with a similar dose. Seeing these wonderful effects, and having at the same time from twenty to thirty horses on the sick list for various complaints of a febrile or inflammatory character, it was, at once, applied, in some cases internally, as a medicine, and externally, as a lotion, with bandages, or friction, or both; and I am glad to state the whole thirty were at work again in a few days. I hope this will be as satisfactory to you, as it is surprising to me.

"Yours truly,

"_____"

(7.) Gripes and Bellyache.

(2.)

"MR. HIBBERT,

"Sir,—I have very great pleasure in informing you, that I have used your Patent Antiseptic in my stables, for my cab-horses, upwards of three years, with the most astonishing

results. My first use of it was on the 1st of May, 1867, in a very severe case of gripes and bellyache—the relief being immediate and complete—which deeply impressed me with its importance as a remedy :—for although struggling, as if in great pain, the animal was upon his legs in five minutes. He soon began to eat his food ; and, in less than an hour, he was at work again. Many cases of gripes and bellyache, and other diseases to which horses are subject, have been treated with your Antiseptic ; and the results have invariably been equally satisfactory. I find that by giving the animals a dose occasionally—say once or twice a week—the recurrence of such attacks is prevented ; and the horses are preserved in good condition ; and they are enabled to go through more work, with less fatigue.

“You are at liberty to refer to me for a confirmation of the above.

“Yours respectfully,

“_____”

(8.) Inflammation in the Bowels ; Constitutional Dose.

“Cheetham Hill, Oct. 28th, 1870.

“Dear Sir,—I have now used your Antiseptic in my stables for three years, giving each horse a tablespoonful twice a week, to keep it in health, which end, I am most happy to say, has been most satisfactorily attained ; as I have not required the services of a veterinary surgeon during all that time.

“Some time ago, a horse put up at my stables, and had inflammation in the bowels, so severe, that it was with the greatest difficulty that we kept it on its legs while we got it into the stable ; when it fell down. We entertained very serious doubts of its recovery ; but after giving it two very strong doses of your Antiseptic, it was much easier, and seemed to rally a little.

“We watched it about two hours ; then gave it another dose, and left it for the night. Next day it was so well, that it was able to do its work.

“I have such unbounded confidence in your Antiseptic, that I recommend it to all my friends ; and think that no one who keeps horses or cattle should be without a supply.

“Yours truly,

“_____”

(9.) Epilepsy.

"MR. HIBBERT,

"March 18th, 1870.

"Sir,—I have used your Patent Antiseptic on several occasions in the treatment of my horse, with very great benefit to the animal and satisfaction to myself; and can, therefore, conscientiously recommend all my friends, who own horses, to have it in readiness for any emergency. But I wish now to inform you of a most extraordinary case of a 'bus-horse, which dropped down in the road, just after passing my shop. After being loosed from the 'bus, apparently in a dying state, it was drawn to the side of the road. So helpless was the animal, and hopeless the case, that it was not thought necessary to leave any person with it—the case being reported at the 'bus office, a cart was sent to convey it away. But when it arrived, the horse had got up and walked off to the stable. A groom and I managed to get a pretty strong dose of your Antiseptic Medicine into the animal; and, like magic, he immediately revived; so that, with a little assistance, he was able to walk to the stables, near two miles away—to the great astonishment of many who were witnesses of the circumstance.

"Yours, &c.,

"_____"

[Having heard of this, on the following day, we called at the office, and were informed the horse was at work.—W. H.]

(10.) Recent Wound from Rusty Nail.

"MR. HIBBERT,

"Sir,—For wounds, I find your Antiseptic Lotion is all that could be desired, as the case I am about to report will tend to prove.

"My carriage-horse, whilst in the grass-field, was caught, haltered, and brought to the rail-fence, and for some reason the end of the halter was tied round a nine-foot rail—about the centre. In a few minutes the animal became frightened, threw up his head, and jerked the rail off the posts; and the nails were drawn—therefore remaining in the rail. The horse galloped off round and round the field, with the rail swinging over his head and neck. At length he was caught, when the rail had broken. On seeing the long rusty nails in the broken rail, we feared he might have received some injury. On examination, it was found that one of the nails had pierced the skin between

the hair and the hoof, from which blood was flowing. Having a very high opinion of your Antiseptic Remedy, I applied your Lotion with my finger, expecting it would be well next morning. But, to my surprise, it was worse. It at once occurred to me, that the horse being in the grass-field, the wet grass had almost immediately washed the Antiseptic off the foot. It was therefore well washed with the Lotion, after which a cotton bandage was saturated with the same, and securely bound over the part. Still, being in the grass-field, the Antiseptic Bandage was frequently refreshed and renewed; and our trouble and care were rewarded by realizing a complete and perfect cure in less than a week. I think this is remarkable; and therefore I think it ought to be reported to you.

“Your most obedient servant,

“_____”

(11.) Broken Knee.

“MR. HIBBERT,

“May 10th, 1867.

“Dear Sir,—One of my carriage-horses, when in harness, the other day, came down and injured one of his knees in a shocking manner—shaving off the skin and flesh, and baring the bone. On the coachman alighting to inspect the damage—the poor fellow threw up his arm—heaved a deep sigh, and burst into tears—exclaiming that the horse was ruined for ever! Your Antiseptic—full strength—was, at once, applied as a wash;—after which we proceeded to form a pad of the cloth used for bathing purposes—placed it over the knee, and bound it up—the horse being carefully manipulated twice a day; and I am proud to state that a complete and perfect cure has been accomplished, and the hair now covers the injured part perfectly; and during the progress of the treatment the horse was almost free from lameness, the Lotion limbering the part so thoroughly. Many grooms, both in the neighbourhood and from a distance, hearing of the extraordinary progress the case was making, came to see the horse. At the end of the first week, a groom asked the man what period had elapsed from the occurrence of the accident. On being informed, he said—‘You may tell that to the marines; I know too much about horses than to believe that. I have five under my charge, and never saw one so well recovered in a month.’ Being a great admirer of the noble animal, and having

a strong sympathy with the race under disease and suffering, I think so wonderful a cure should not be without a reporter ; it should be published rather, and in the hands of every breeder, dealer, and stabl-keeper.

“ Yours, &c., “ _____ ”

CLASS II.—CATTLE.

(1.) Milk Fever.

“ W. HIBBERT, Esq.

“ Liverpool, *May 30th*, 1870.

“ Dear Sir,—I was in Yorkshire last week, and my brother-in-law, a farmer, eight miles from York, to whom I sent the Antiseptic, has three very extraordinary cases to report—two of human beings and one of cattle, which I think would be of great benefit to you, and he could readily get you the testimonials. I was very busy while there, or I might have got them myself. I think it might be worth your while to go over to York, and he would be very glad to meet you, and drive you to his place ; and you could get the testimonials. I can assure you a hospitable reception, to stay for a few days, if you choose, when he could explain in ten minutes, more than I could write in a sheet. Regarding the cases, however, one was the case of a very respectable man, who had two doctors attending him for three weeks, and he could scarcely move. From what I can learn, it appeared to be rheumatic gout. He discharged his doctors. My brother-in-law told him that he would not let him have the Antiseptic until the doctors were gone. He then had it internally and externally ; and in four days he was out and able to go about his work. The other case was a boy, who, I believe, had not been able to be out of bed for months. After using it for a week, he was able to be up and about. They heard he had a relapse when I was there. The cattle case was that of a very valuable cow of my brother-in-law's, with milk fever. They tried all the usual remedies they knew of ; and, being good beef, they were about to send for the butcher to kill her. They had given up all hopes of her getting better, when he thought of the Antiseptic. He gave her six table-spoonfuls in three hours. He saw she was evidently better. In four hours he again repeated the dose ;

and in two hours after she got up, and took her food ; and she has been all right ever since. If you should be here, I shall be glad to see you, and explain more fully. If you choose to write to my brother-in-law, you will find his address below.

"I am, yours truly,
"_____"

(2.) Lung Disease. .

Clifton, 21st October, 1870.

The following circumstances are given in connection with the lung disease in cattle :—

A farmer at Clifton, near Manchester, came to the Antiseptic Works several times ; and on each occasion informed us that he had lost another cow from lung disease ; making many enquiries, at same time, about our Antiseptic. On the fourth visit, he screwed up courage to speculate in a half-crown bottle ; and, in about ten days, returned in high spirits to inform us that the use of the one bottle had set all his stock right, and brought them into a healthy condition : after which he enquired whether we would not take something less if he would take another bottle ? We, of course, answered in the negative ; when he stated that he had heard of our having made some extraordinary cures of horses ; and that he had one with a very bad leg ; and requesting to know whether we would undertake to cure it. We replied that we had quite enough to do without undertaking to manipulate farmers' horses—unless, indeed, when some very interesting exceptional case presented itself. After paying the full price for another bottle, he left, seeming quite disappointed with our prompt declination. W. H.

(3.) Wasting (Atrophia) from Want of Nutriment.

"Mr. HIBBERT,

"November 15th, 1870.

"Dear Sir,—I have had a cow for some time in a state so hopeless that I was on the way to fetch the butcher to put an end to her misery. She had long refused her food, and had wasted away to a skeleton. It appeared as if the very bones within were also wasting—her bulk decreased so perceptibly. I met a neighbouring farmer, when on my way to the butcher, to whom I stated the case ; and he strongly urged me to try your Antiseptic ; and although doubtful, I lost no time in obtaining a supply, and continued to administer it in liberal doses twice a day. After three or four doses, the animal com-

menced to eat her food in small quantity—showing evident symptoms of improvement after every dose, until a perfect cure was effected, and I have since sold the cow for £19; and I think this is a very satisfactory proof of the value of your Patent Antiseptic. I keep a constant supply by me, awaiting any emergencies which may occur.

“I am, yours, &c., “_____”

The atrophy, in this case, did not arise from scanty or innutritious food, but from the inability to partake of it. The blood was thus deprived of an adequate supply of the elements of nutrition; but the Antiseptic Medicine corrected the morbid state of the digestive organs, enabling them gradually to recruit the expenditure by an additional elaboration of nutriment; so that an additional supply of nutrition was introduced into the blood by the chylific organs, and the general harmony pervading every link of the extensive chain of nutrition from the digestive organs was restored; and the assimilating organs resumed healthy tone and action, and separated from the blood the nutritious particles in abundance. The Medicine, in this instance, acted as an alterative and tonic—reinvigorating the system throughout—and aiding the digestive powers, at the same time, in the elaboration of additional nutriment.

W. H.

(4.) Wasting (Atrophia) from Debility.

“Mr. HIBBERT,

“October, 1869.

“Sir,—I find your Antiseptic is a most valuable requisite in the feeding of cattle for the butcher.

“I had two old cows which I wished to feed for the market, but they were low in flesh, and made no progress. I had heard of your Antiseptic as of immense use in the feeding of cattle, and concluded to try it, at least for a time. The change in the appetite of the animals was so immediate and striking, and their improved appearance so apparent in a few days, that I was induced to continue. I gave them two wineglassfulls of your Antiseptic Medicine every day; and can assure you I was astonished, not only in their increase in bulk, but also the shortness of the time required for getting them into condition for the butcher, quite surprised me. It seems so quickly and thoroughly to put them into a state of health and vigour that

condition progresses with unusual rapidity ; thus enabling to extract from their food the utmost possible measure of nutriment.

"I also find it an admirable thing for sprains, bruises, and wounds, and injuries of every kind. I am, yours &c."

" ————— "

In this instance we have Atrophy, or wasting from debility ; the not introduced into the blood in sufficient quantity of nutriment by the chylific organs, and not sufficiently separated from it by the assimilating organs. The animal frame had lost its firm and healthy constitution ; and the general harmony of the system pervading every link of the extensive chain of nutrition, from the digestive organs to the assimilating powers, had been disturbed and weakened. This harmony may have been intercepted in some one part or other of its tenour ; so that the digestive powers—or some of them—did not perform their trust as they should have done ; and the assimilating powers—or some of them—may have exhibited a like default ; the blood may not have been sufficiently elaborated in its course, or may have become loaded with some peculiar acrimony. In the atrophy of debility, it is very difficult to trace out the link in the great chain of action which has first given way. But from the sympathy which so strikingly pervades the whole (see "Sympathy," in this volume), we at once see how easy it is for unsoundness, or debility of any kind, or in any quarter, to extend its influence to another, till the disease becomes general over the system.

W. H.

(5.) General Testimonial.

" Mr. HIBBERT,

" Nov. 30th, 1870.

" Dear sir,—I think your valuable discovery is not sufficiently known to farmers ; if it was we should not have such alarming accounts of the prevalence of complaints among cattle. I commenced to use your Antiseptic Medicine and Lotion for cattle three years ago, and cannot say more for it than this ; that I have never required the services of a cow doctor since I commenced to use it ; and I take care not to be without a supply of it in the shippin for emergencies of all kinds ; as the external and internal use, singly or combined, as may be necessary, seem to meet the requirements of all sorts of diseases to

which cattle are subject. You are welcome to make any use you please of this, for the benefit of farmers and cowkeepers generally,

“Yours respectfully,
“_____”

CLASS III.—SHEEP.

Flatus and Indigestion.

On returning from the Continent, on landing at Harwich, Essex, we found that a gentleman farmer, holding upwards of 400 acres of land, was losing a great many sheep. Hearing, however, that we were in the neighbourhood of Colchester, he sent to request that we should inspect his flock. For this purpose, the shepherd collected nearly three hundred. Observing them stop at the pond, very eager to drink, we requested the man to prevent their drinking, by driving them quickly past the pond. On questioning the gentleman as to what he was feeding them upon, he replied that they were in the pea-fields, feeding upon the peas, and they then run to the pond, and drink as much as they please. “How can you possibly, under these circumstances, expect astonishment at your sheep dying off?” we replied: “they are swollen to bursting.” He requested to know what he ought to do. We answered, “Do! Why if you can do nothing better, you can send them in for an hour or two, and then fetch them up for the remainder of the day.” In fact, the whole flock seemed as though they might be on the point of lambing—they were so blown out. We requested him to select and secure one or two of the worst cases. Three were secured, and separated from the flock; and the owner, seeing the cases to be so desperate, pulled out his knife to cut their throats, so as to be able to sell them—declaring, at the same time, there was no time to be lost in experiments. We remonstrated with him, and requested him to turn them into a cote near at hand. A dose of the Antiseptic was given to each—the time eleven o’clock—and we promised to call again after dinner, to administer another dose, which we did about three o’clock. On retiring at eight o’clock on the same evening two were turned out quite cured; and not feeling quite satisfied with the third and last one, we gave it another dose, and requested it should remain in the cote till next morning. On going over to the farm early,

we found the creature hearty and brisk ; so it, in its turn, was liberated. It must here be understood that our Medicine and labour were given freely and with out charge ; but the gentleman, seeing such demonstrative proofs of the extraordinary power of the Medicine for subduing such inflammatory and fermentive action, gave us an order for a guinea bottle.

A few weeks after, we were informed the same gentleman had sixteen horses down sick ; and was unable to convey his produce to market.

CLASS IV.—THE PIG.

(1.) Measles.

(1.)

“ Manchester, 6th May, 1870.

“ MR. HIBBERT,

“ Sir,—I write to inform you that your famed Antiseptic has been remarkably successful in effecting a quick and complete cure of a valuable pig, suffering under measles,—after trying all the other usual remedies without any beneficial result. When almost losing all hope, it occurred to me—although I had no correct information as to its operation generally—that your Antiseptic might be useful even in the case of swine ; so I obtained a bottle of it, and put several doses in its food, which it did not refuse. The effect was marvellous. It was soon restored to its usual state of health. I think your attention should be drawn to the matter ; and I therefore send you this account of this important case.

“ Your most obedient servant,

“ _____ ”

(2.) Measles.

(2.)

“ Higher Crumpsall, 4th February, 1870.

“ MR. HIBBERT,

“ Sir,—It is with great satisfaction I have to inform you, that I have cured another of my pigs, which was badly affected with measles ; and although a worse case than the first, your Antiseptic was equally successful in effecting a speedy cure, in this case as in the former case. The Medicine was

given three or four times during the day, at first. The disease seemed to be quite arrested after the fourth dose, when it began to eat its food. Still we continued to give the Medicine ; and the recovery was very rapid. I now use it regularly as a preventive.

"Yours, &c.,
"_____"

CLASS V.—THE DOG.

(1.) Rabies ; Madness.

"MR. HIBBERT,

"Sir,—It is reported you have offered a handsome sum to any person who would procure for you a dog labouring under the first symptoms of hydrophobia, for experimental purposes. I may inform you that, a few days ago, I quite expected to be able to meet your wishes in this respect, and to send you a dog, of which I am the owner. It was dreadfully ill of distemper ; I never saw an animal suffer more, and I believe the disease was on the point of running into hydrophobia. The saliva ran copiously down from the mouth ; eyes vacant and protruding ; and other alarming symptoms revealed themselves. However, we managed, by careful handling, to get a teaspoonful of your Antiseptic into him. In about half an hour after, the violence of the symptoms greatly moderated. Observing such a decided improvement, we administered another dose—one teaspoonful. Shortly after this, the dog seemed to be quite easy, and free from pain. We then lengthened the intervals—giving smaller doses. Strange, but true, the following day, he was far advanced towards recovery, and in three days he had regained his usual health.

"I am, yours sincerely,
"_____"

(2.) Poisoning by Rat Bite.

(1.)

"February 3rd, 1868.

"MR. HIBBERT,

"Sir,—I have to report a curious case, in which your magical Antiseptic has performed a wonderful cure on a valuable dog,

famed for its extraordinary feats in rat-killing. On one occasion it received a very savage bite under the jaw from a poisoned rat—after which its head became swollen to an enormous size; the crisis of the blood appeared to alter, and become thin as water; and the agony endured by the unfortunate animal was painful to witness. Froth and saliva ran from the mouth, and the eyes and tongue protruded in a shocking manner. There was, evidently, no time to lose; and having always a supply of your Antiseptic in the house (I have given many a bottle away), I washed its throat freely with the Lotion, and then fastened the Antiseptic cloth over the part, and bandaged it on after. I then washed out its mouth with the Antiseptic, and gave it a strong dose of the same internally. The poor animal seemed wonderfully easier; and in an hour after, to my great amazement and joy, he was much relieved and continued to improve. Every successive hour an improvement was perceptible; until, after a few days, he appeared quite recovered. We paid great attention to frequent dressing, and the Medicine was administered as a constitutional dose. I could not have hoped for a cure; but I well knew what wonderful cures your most valuable Antiseptic had already effected.

“Yours truly,
“_____”

(3.) Poisoning by Unwholesome Food and Leprosy.

(2.)

“MR. HIBBERT,

“1868.

“Dear Sir,—I take the liberty of writing to inform you of a very extraordinary and quite unexpected cure by the use of your Patent Antiseptic Medicine for animals. The case is that of a very valuable little dog, of the black and tan breed, which had, for some time, been very improperly fed upon bad carrion meat. The result was, that it became so gross, and so thoroughly impregnated with poisonous, decomposing matter, and this to such an extent, that it appeared completely rotten both within and without. In fact, it was necessary to handle it carefully and tenderly,—seeing that if you laid hold of the skin firmly and roughly, it came off in pieces.

“Having heard many accounts of your Antiseptic, and its wonderful power, I determined to give it a fair trial, although

I had but little hopes of a cure being effected. Your medicine was given several times a day at first ; and, to my great surprise, the unfavourable symptoms almost immediately appeared to moderate and disappear. The improvement continued so rapid and decided that in a fortnight after commencing the course of treatment, I was enabled to send it to the Dog Show, at Middleton, during the Agricultural Meeting.

"I am, yours, &c.,

"_____"

(4.) Fever.

"MR. HIBBERT,

"Cheetham Hill, *Sept. 10, 1870.*

"Dear Sir,—I must apologize to you for having taken the liberty of asking your opinion regarding my dear little pet ; I am now glad to inform you that two doses of your wonderful Antiseptic restored it to its usual health. And perhaps you are right in advising me to give it plain food, and more fresh air. I shall know how to treat it in future with your valuable Medicine, and will take care not to be without a constant supply.

"I am, dear Sir, yours faithfully,

"_____"

(5.) Sprain.

"MR. HIBBERT,

"*May 5th, 1870.*

"Sir,—Perhaps it may be interesting to you to know that your patent Antiseptic Lotion was applied to a valuable little pet of the Prince Charles breed, with something like magical effect. One of its fore legs was very badly sprained, and the poor creature was in great pain, and all we did for it seemed to bring no relief. At length we obtained a bottle of your Antiseptic Lotion, with which we bathed and rubbed the part, and swathed it in an Antiseptic Cloth ; and, to our great astonishment, when the dog was placed on the floor—after treatment—it ran about cleverly, and appeared quite cured.

I am, yours truly,

"_____"

CLASS VI.—POULTRY AND CAGE BIRDS.

(1.) Poultry Leech.

[General Testimonial.]

"MR. HIBBERT,

"*Manchester, April 3rd, 1870.*

"Sir,—I write to inform you that I have long been famed for my skill in the breeding and treatment, as well as in medi-

cating poultry in all kinds of disease to which they are liable ; and this, both in my own flock, and in those belonging to a number of gentlemen in this district, which were placed under my charge. But your Antiseptic Medicine, quite beats me out of the field ; so I have had to take to it in preference to my own old remedies ; and must confess, in common candour, that after two years' trial, I have been more successful than I ever was before. In fact, I have not yet found it fail in any kind of disease, with judicious management—that is to say, diseases common amongst poultry ; and can state positively that many, very many, valuable birds have been saved by it.

"I am, sir, your most obedient servant,

"_____"

(2.) The Blacks.

"MR. HIBBERT,

"Dear Sir,—I have tried your Patented Remedy for the cure of several diseases in my poultry. I had a number dying from the blacks, &c., &c. One of them was so far gone that I could not get the Medicine into it. But all the rest, although nearly as bad, were quite well and eating their food as usual the next day ; whilst the one which I failed in giving the Medicine to, was found dead next morning. If any should want further information, you can refer them to me.

"Yours truly,

"_____"

(3.) Canary Birds.

[Wonderful Cure.]

It will, no doubt, appear superfluous to descend lower in the scale of being, though our Theory and Practice be as applicable to the least entity as the greatest. Nevertheless, we have noticed elsewhere in this work (see the Silk Trade and Silk Worm) one very exceptional instance, which is universally admitted to be of vast importance to the manufactures, trade, and commerce, of the country, and of all civilized nations, viz. : the silk worm. With a view still further to establish its undoubted virtues, and the universality of its health-giving and restorative action—its inherent power in relieving suffering and

removing disease in the animal kingdom, we shall recount a little anecdote which cannot fail to be interesting to every one.

The following is given as one of the most interesting experiments we have made, with the view of practically testing the medicinal properties and virtues of the Antiseptic Remedy. The subject was a canary bird. On leaving home for a few days, the servant was requested to take care of the bird, as usual. We left on the Saturday morning; and, immediately after our departure, the servant took down the cage, cleaned it out, removed the perches to wash them, replenished the water vessel and seed box, and hung up the cage again—but forgot to replace the perches—the result being that the bird was not able to get at either the seed or water. On our return home on Tuesday night following, the bird was not visible. We enquired of the servant in charge whether she had allowed it to escape? She replied in the negative, and the cage was taken down, when the little bird was found laid upon its side in a dying state. It was instantly removed from the cage, held in the hand for a few minutes in the expectation that every moment would be its last. Whilst thinking how we should dispose of it, it occurred to us to try an experiment upon the little favourite. For this purpose a tablespoonful of water was put into a tea saucer, to which was added one drop of the Patent Antiseptic Medicine, the clean end of a lucifer match being used to stir or mix this weak dilution. With the end of the match we coaxed a drop of the mixture into its little mouth, and instantly closed the bill, still holding the bird in our hand, and closely observing it. In two or three minutes there was a slightly perceptible improvement in its breathing; the gasping became less violent and less frequent; the pulse became perceptibly stronger; and we therefore resolved not to throw it out, nor to gratify pussy with so tender a morsel. We placed it gently in the bottom of the cage to take its chance till the morning, when we found it still alive, although too weak to mount the perch. But, on seeing us approach the cage, it jumped to the other side of it. Observing this, and as we had promised to return to our family, water and seed were placed beside it in the bottom of the cage, and the servant requested to see to it as formerly. This was on the Wednesday, and on the Saturday we returned, and, on enquiry being made, the servant stated that in the morning she had been awakened by its singing.

Now this little history, and many of the same kind which could be related at any time, serve so far to demonstrate the universality of the application of the Antiseptic Remedy. In fact no entity is too large, and none too small in the scale of being, to profit by its virtues, if the dose be nicely and judiciously regulated on each occasion, when opportunity offers.

W. H.

REPORTS.

(1.) Report on the Disinfecting and Deodorising Properties of your Antiseptic Preparations.

“MR. HIBBERT,
“Chemical Laboratory, Manchester,
“*March 6th*, 1866.

“During the last few months, I have undertaken numerous chemical experiments and investigations with your Antiseptic preparations, for the purpose of efficiently testing their disinfecting and Antiseptic power. The disinfecting action of the ‘preparations’ upon decomposing animal matter (putrid beef, diseased meat, &c.), also their Antiseptic properties with fresh meat, were carefully studied in each series of experiments.

“SERIES 1.—Portions of putrid animal matter, &c., were treated. The disinfecting power was evident in a few minutes, the disagreeable odour and putrefying action being completely destroyed. Samples of fresh meat were thoroughly impregnated. After the lapse of some weeks they were examined, and found to be in a sound condition, due to the Antiseptic properties of the preparations.

“SERIES 2.—Air, contaminated with [offensive gases and effluvia, given off from decomposing animal and vegetable matter, was passed through a filtering or washing apparatus containing the preparation. Upon testing, the air was found to be completely disinfected, the whole of the noxious matter being removed.

“From the results of the above series of experiments and investigations, I am of opinion that your Antiseptic Solutions are powerful deodorising and disinfecting agents; and that, if freely used for disinfecting hospitals, barracks, prisons, railway trucks, shippens, &c., it would act most beneficially in preventing the spread of contagious diseases.

“FEARNSIDE HUDSON, F.C.S., &c.”

(2.) Veterinary Report.

“The Hope, Pilkington, near Manchester.

“MR. HIBBERT,

“Sir,—I beg to hand you my report of the results of experiments undertaken by me with a view of carefully testing the properties of your Antiseptic and Disinfecting Preparations for arresting the spread of contagion amongst cattle; and, as requested, have confined myself principally to giving occasional and moderate doses to healthy animals, of from four to six table-spoonfuls, in their drink-water, for the purpose of impregnating the blood and fortifying the system with what I find to be a powerful antidote to fermentation or putrescence, and calculated to enable nature to resist the influence of contagion.

“Having treated a number of the stocks under my charge in this district for several months, some of which have been surrounded by rinderpest, I have great pleasure in being able to bear my testimony to its entire success as a preventive; not a single case having occurred where it has been used.

“The following experiments were undertaken with a view of satisfying myself as to their power as an Antiseptic and Disinfectant, before administering the same to healthy subjects:—First, I had the mouth of a beast in the last stage of the disease washed out with the preparation, allowing it to swallow a small portion, when the effect was instantaneous; the breath, which was so intolerably offensive, became, as if by magic, sweet as the most healthy animal; but, being under special treatment by Worms's remedy, it was not proceeded with.

“Again, what remained in the vessel after washing the mouth was thrown over some dung from the same patient, and with similar results, viz., instant and complete disinfection.

“The above results being so conclusive, I ventured to apply it in the place of caustic to a wound on my own hand, which had been inoculated by virus whilst handling a patient; the result being most favourable and successful in forming a healthy scab, &c., and the wound healing in the most satisfactory manner.

“Also, one of the cowmen, in attendance upon the sick; becoming seriously ill from infection, was completely disinfected in a few minutes by taking from six to eight drops, in a little water.

"These, with other careful and practical experiments, force upon me the conviction that so powerful an Antiseptic is calculated to supply the great want of the veterinary practice.

"As regards the test of the mechanical appliance of Auxiliary Lungs at Earl Wilton's farm, I may state that the animal under the operation manifested no symptoms of inconvenience, but, on the contrary, breathed with the greatest freedom and ease; there being symptoms of the refreshing influence of the purified air inhaled. It was also evident that the contagious air breathed from the lungs was completely disinfected before emerging from the filter into the atmosphere.

"I am, yours truly,

"JAMES BROOKES, Veterinary Surgeon."

(3.) Rinderpest, or Cattle Plague.

The following interesting Report of Experiments at Lord Wilton's Farm, Heaton Park, near Manchester, on March 1st, 1866, is taken from the *Manchester Examiner and Times* of March 2, 1866 :—

"A party of gentlemen attended yesterday at Lord Wilton's farm, Heaton Park, to witness an experiment in a process for obtaining absolute isolation of diseased cattle as regards the air they breathe. Among the gentlemen present were the Rev. J. W. Wild, rector of St. Mary's, Higher Crumpsall; Mr. Hudson, analytical chemist, Cross Street; Mr. Brookes, veterinary surgeon, Whitefield; Mr. Hughes, of Hughes and Bloodworth, patent agents; Mr. James Hibbert, hat manufacturer, and brother of Mr. W. Hibbert, the patentee of the invention; and Mr. William Hibbert. The plague, it seems, had been raging with great violence on Lord Wilton's farm for the last six weeks. It has swept off, in that short time, seven-eighths of the whole herd, including some fine head of Scotch bullocks, and several prize bulls. There are but nine survivors out of a herd of forty, and all of these are ill of the plague—some in a moribund state, and none likely to live. A week or two ago, Lord Bury, who was interesting himself at the time in obtaining for Dr. Worms's treatment a fair trial, sent to Lord Wilton's steward a quantity of medicine, with instructions for its use. The animals were duly dosed, but they kept dying as before. Under these circumstances, Mr. Hibbert requested permission to try his experiment on one of the sick beasts, less

with a view of effecting a cure (which in this case was beyond hope), than to make a trial of his apparatus as an instrument for procuring what is agreed to be the primary requisite for prevention, viz., isolation.

"The visitors yesterday could not but be painfully struck with the wretched sight they saw. On one of the slopes, within view of the hall, were half-a-dozen miserable-looking creatures, the relics of a noble herd, some standing motionless, others swaying their bodies to and fro, with drooping ears and dwarfed forms, bleared with catarrh, and tainting the air they breathed. The shippons presented even a more pitiable appearance. Such few of these as were not yet empty were occupied by two or three young prize bulls in the last stages of disease; neither Mr. Brookes nor his lordship's steward having the slightest hopes of their recovery. One of these was selected as a subject for Mr. Hibbert's experiment. Whether the animal found ease and relief from the treatment, or was too far gone in illness to make any sign of restiveness, it certainly bore the trial patiently, and occasionally showed less languor than before.

"The apparatus consists of a gutta percha muzzle, fastened by straps to the head and horns, and furnished with two tubes, one for the supply of purified air (filtered from air outside the shippon), and the other for the discharge of vitiated air. To use Mr. Hibbert's terms, this arrangement serves the office of auxiliary lungs. In the tube supplying purified air is inserted a valve, which opens by the act of inhalation, and closes by that of exhalation; and in the outlet tube is another valve, which opens by exhalation, and closes by inhalation. Obviously the effect of this is to prevent the diseased animal from breathing the air of the shippon. The supply tube is attached to a chamber or box, forming the front of the manger. This box, called the reserve chamber, is filled with purified air obtained through a chemical filter. The process of purifying the air is sufficiently simple. There is a set of pipes conveying atmospheric air into the bottom of the filter, which contains, up to a certain height, a solution specially prepared for the purpose; and the air thus purified ascends through a series of strata of charcoal, coke, or other porous substances, and thence, through a fine sieve, it makes its way into the reserve chamber. In proportion as the beast inhales this air, so a partial vacuum is formed in the box; and this, of course, is immediately filled up

by a further supply of atmospheric air, admitted through the filter pipes. With regard to the discharge of the tainted air, care is taken, by means of another disinfecting filter, to purify it before it passes into the atmosphere. The result of all this is, that the very elements of the plague—as regards the animal under treatment—are collected and retained in the disinfecting solution at the bottom of the discharge filter. When it is expedient to remove the muzzle to give the beast food, machinery is at hand for continuing, as far as possible, the state of isolation, which was completely obtained while the muzzle was on. This is done by partitioning off a portion of the front of the stall, large enough for the beast's head and food. A pair of doors is then closed round the animal's neck, and an air-proof cloth is used to keep out the atmospheric air. Not the least interesting feature, in the experiment yesterday, was the mode of ascertaining the regularity and ease with which the animal breathed by means of the 'auxiliary lungs.' This was arrived at by placing the ear over the supply, or outlet filter, from each of which positions the respirations were distinctly audible, in low, regular thuds. Mr. Hibbert, as we have said, does not claim for his invention any special quality in curing animals struck with plague, except in so far as its application assists nature, and renders medicine of more avail, by purifying the air the beasts breathe. The experiment yesterday served to show that, within these limits, the apparatus works with complete success, and that the invention will probably come to be regarded as one of considerable practical importance."

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